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The EDITH *and* LORNE PIERCE
COLLECTION *of* CANADIANA



Queen's University at Kingston

SCHEDULE OF DESPATCHES, &c.

IN RELATION TO THE

IMPERIAL INSTITUTE.

Printed by Order of Parliament.



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(79.)

SCHEDULE OF DESPATCHES, &c.,

IN CONNECTION WITH THE

PROPOSED IMPERIAL INSTITUTE.

—o—

9 VICTORIA CHAMBERS, LONDON, S.W., 28th June, 1886.

SIR,—I have the honor to transmit herewith, for the information and consideration of the Government, a copy of a letter I have received from the Royal Colonial Institute, covering a communication from the Council of the Institute, signed on their behalf by the Duke of Manchester, as Chairman, on the subject of the formation of a Colonial Museum in London.

I have, &c.,

CHARLES TUPPER, *High Commissioner.*

The Hon. the Secretary of State, Ottawa, Canada.

ROYAL COLONIAL INSTITUTE, NORTHUMBERLAND AVENUE,
LONDON, W.C., 17th June, 1886.

SIR,—I have the honor to enclose a letter which has been addressed to your Government by the Council of the Royal Colonial Institute, and signed on their behalf by the Duke of Manchester as Chairman, on the subject of the formation of a Colonial Museum in London, with a request that you will be good enough to forward it, as soon as possible, to the Government you represent.

I have, &c.,

FREDERICK YOUNG, *Hon. Secretary.*

Sir CHARLES TUPPER, G.C.M.G., C.B., High Com'r for Canada, London, S.W.

ROYAL COLONIAL INSTITUTE, NORTHUMBERLAND AVENUE,
LONDON, W.C., 17th June, 1886.

SIR,—On behalf of the Council of the Royal Colonial Institute I beg to address you on the subject of the establishment of a Colonial Museum in London.

As will appear by their annual reports, the Council have long been deeply impressed with the paramount importance of the establishment of a Colonial Museum in London. The Exhibition now open affords an opportunity which will never again present itself for the formation of such a museum, wherein the resources, products and manufactures of the various Colonies may be preserved and displayed for public inspection and instruction.

In furtherance of these views the Council hope that you will, at the earliest possible opportunity, bring this matter under the notice of the Government of the Colony you represent, and they trust that you may be authorized to confer with the several agents general in London, so that a combined strenuous effort may be made to prevent the dispersion at the close of the Exhibition of the magnificent display now on view at South Kensington. The Council have expressed their readiness to co-operate, as far as lies in their power, in carrying out any well considered plan for the accomplishment of this important object.

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A similar letter has been addressed to the Secretary of State for the Colonies, with a request that the Crown agents may be instructed to join with the High Commissioner for Canada and the several agents general, in any conference they may hold on the subject.

I am, &c.,

MANCHESTER, *Chairman of the Council.*

Sir CHARLES TUPPER, G.C.M.G., C.B.,

High Com'r for Canada, 9 Victoria Chambers, S.W.

Draft of Letter Sent.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 13th July, 1886.

SIR,—I have the honor to acknowledge the receipt of your despatch, No. 515, of the 28th June last, transmitting for the information and consideration of the Government, copy of a letter received by you from the Royal Colonial Institute, covering a communication from the Council of the Institute, signed on their behalf by the Duke of Manchester, as Chairman, on the subject of the formation of a Colonial Museum in London, and to state that the matter will receive consideration.

I have, &c.,

GRANT POWELL, *Under Secretary of State.*

Hon. Sir CHARLES TUPPER, C.B., G.C.M.G.,

High Com'r for Canada, London, England.

COLONIAL AND INDIAN EXHIBITION, 1886, CANADIAN SECTION,
SOUTH KENSINGTON, LONDON, S.W., 22nd July, 1886.

SIR,—I have the honor to enclose a communication, addressed to me by H. R. Highness the Prince of Wales, for the information of the Government in reference to the question of continuing the Colonial and Indian Exhibition. The memoranda of two meetings of the Executive Commissioners upon the same subject, also enclosed, will furnish further information in regard to this project.

I need only add that this Exhibition has produced a profound impression here, both in the minds of the people of this country and the other Colonies. If means can be devised to continue a good exhibit of the products and resources of Canada without involving too great an expenditure, it will, I believe, result in incalculable good.

I will be glad to be advised of the views of the Government as early as is practicable, in order that I may govern myself accordingly.

Yours, &c.,

CHARLES TUPPER.

The Honorable the Secretary of State, Ottawa.

DEPARTMENT OF STATE, OTTAWA, 9th August, 1886.

SIR,—I have the honor to acknowledge the receipt of your letter of the 22nd ultimo, enclosing a communication addressed to you by His Royal Highness the Prince of Wales, in reference to the question of continuing the Colonial and Indian Exhibition, and to state that the matter will receive consideration.

I have, &c.,

GRANT POWELL, *Under Secretary of State.*

To the Honorable Sir CHARLES TUPPER, G.C.M.G., C.B.,

High Com'r for Canada in London, 9 Victoria Chambers, London, S.W.

COLONIAL EXHIBITION OF THE BRITISH EMPIRE.

His Royal Highness the Prince of Wales, Executive President of the Royal Commission for the Colonial and Indian Exhibition, has much pleasure in forwarding to the Executive Commissioner for Canada, for the information of his Government, copies of the reports of two meetings of the Executive Commissioners of the Exhibi-

tion which recently took place, when the question of the advisability of the formation of a permanent museum or exhibition as an outcome of the present exhibition, was discussed.

In bringing this matter to the notice of the Government of the Dominion, His Royal Highness is desirous that it should be understood that his only wish in associating himself with this movement is that the interests of the colonies themselves may be best served. His Royal Highness would further point out that it is for the Colonial Governments to decide whether or not such an institution would be advantageous to them, and that the question of whether this undertaking should be proceeded with or abandoned is entirely one for themselves to decide. Should the Colonial Governments consider that their interests would be furthered by the formation of a permanent colonial exhibition, His Royal Highness is desirous of assuring them that he will, under certain conditions, have much pleasure in actively supporting such an undertaking. His Royal Highness would, moreover, draw attention to the fact that if this exhibition is to be formed, the present time would be especially favorable for taking action; indeed, it may be assumed that the disposal of the collections at the close of the present Exhibition, without any effort being made for their retention, would point to the fact that the Colonial Governments had arrived at the conclusion that no good would arise by their continuance in this country.

The agents general for the colonies and executive commissioners for this exhibition, appointed by the Colonial Governments, while naturally unable to speak officially on the subject, have generally declared themselves anxious to obtain a permanent home for the collections at present shown at South Kensington; and it is in consequence of the views which have been expressed by them that His Royal Highness has been induced to give countenance to this scheme.

While it is impossible at the present time, and without having obtained the formal opinions of the Colonial Governments, to propose any definite plan by which the permanence of the collections which are at present being shown at the Colonial Exhibition could be secured, His Royal Highness feels that the following conditions are essential for placing such an institution on a sound financial basis, and they are mainly the conditions under which His Royal Highness would desire such an undertaking to be organized, should the Colonies wish him to assume its executive presidency:

1. That the executive president make such arrangements as he may consider desirable for the executive administration of such an exhibition.
2. That the Colonial Governments arrange for the collections which they have forwarded to the present Exhibition to remain—with such modifications as they may deem desirable—as the nucleus of the Permanent Colonial Exhibition.
3. That each Colonial Government participating in the Exhibition undertake to make a yearly grant in aid of the cost of maintaining the Exhibition, and that the guarantees which the Colonial Governments have contributed to the present Exhibition be continued in favor of the Permanent Exhibition, the liability on such guarantees to extend so long as the continuance of the Exhibition may seem desirable.
4. That an application be made to Her Majesty's Commissioners for the Exhibition of 1851—the landlords of the grounds on which the present Colonial and Indian Exhibition stands—for obtaining a lease of the grounds on favorable terms, and that negotiations be also entered into with the Executive Committee of the International Fisheries Exhibition, and with the other bodies who own the present Exhibition buildings, for transferring the same to the new Exhibition.
5. That each of the Colonial Governments participating have its own section, and that, as is the case at the present Exhibition, a representative of that Government be appointed to have entire charge over it.
6. That a finance committee be appointed from among these representatives who will have the control of all financial matters connected with the undertaking.
7. That an admission fee be charged to the public, and that means be taken for attracting visitors as at the present series of exhibitions, and that every effort be

made to render the exhibition self-supporting and independent of the guarantors. In forwarding this memorandum His Royal Highness is desirous of impressing upon the Colonial Governments the necessity of an early decision being arrived at, and he would suggest that such decision be communicated to him by telegraph, in order that their views may be known previous to the close of the present exhibition in October.

His Royal Highness would add that he has already received promises from four private gentlemen of guarantees amounting to five thousand pound each, and that these gentlemen have undertaken to obtain further sums. Previous, however, to definitely accepting these handsome contributions, it is, of course, necessary that the views of the Colonial Governments should be ascertained; but, in the meantime, His Royal Highness will be happy to receive conditional promises of contributions towards this guarantee fund, and for this purpose he would suggest that lists be opened both in this country and in the Colonies.

21st July, 1886.

Cablegram from His Royal Highness the Prince of Wales to the Governor General.

LONDON, 19th September, 1886.

Referring to suggestion already communicated as to permanency of present exhibition I now propose memorial of Queen Jubilee should take form of permanent Imperial Institute of Colonies and India, comprising display of Colonial and Indian resources. Contributions in aid institution to be solicited from Government and public here and all parts of Empire, to be vested in Board trustees appointed by Sovereign under permanent presidency heir apparent Throne. Glad to be favored with your views by cable and to hear whether your Government prepared recommend annual grant for certain number years or if preferred sum down.

PRINCE OF WALES.

Office of the Governor General's Secretary.

The undersigned has the honor, by desire of His Excellency the Administrator of the Government, to draw the attention of the Hon. the Privy Council to the cablegram received from His Royal Highness the Prince of Wales, dated the 19th September last, and referred to Council on the following day in which His Royal Highness proposes that the memorial of the Queen's Jubilee should take the form of a permanent Colonial and Indian Exhibition and asking to be favored with the views of the Canadian Government by cable.

His Excellency the Administrator requests that he may be enabled to reply to the above with as little delay as possible.

HENRY STREATFEILD, *Gov. Gen. Secretary.*

To the Hon. the Privy Council.

PROPOSED IMPERIAL INSTITUTE.

LETTER FROM THE PRINCE OF WALES.

The following correspondence has passed between the Prince of Wales and the Lord Mayor:—

MARLBOROUGH HOUSE, PALL MALL, S. W., 13th September, 1886.

DEAR LORD MAYOR,—My attention has been frequently called to the general anxiety that is felt to commemorate in some special manner the approaching jubilee of Her Majesty's reign.

It appears to me that no more suitable memorial could be suggested than an Institute which should represent the arts, manufactures and commerce of the Queen's Colonial and Indian Empire.

Such an institution would, it seems to me, be singularly appropriate to the occasion, for it would illustrate the progress already made during Her Majesty's reign in the colonial and Indian dominions, while it would record year by year the development of the Empire in the arts of civilization.

It would thus be deeply interesting to Her Majesty's subjects both within and beyond these islands, and would tend to stimulate emigration to those British territories where it is required, to expand the trade between the different British communities, and to draw closer the bonds which unite the Empire.

It would be at once a museum, an exhibition, and the proper locality for the discussion of colonial and Indian subjects.

That public attention has already been forcibly directed to these questions is sufficiently proved by the remarkable success which is attending the Colonial and Indian Exhibition at South Kensington, and I confidently anticipate that arrangements may be made whereby the more important collections, which have so largely contributed to this success, will be placed at the disposal of the institution.

I have much satisfaction in addressing this letter to your Lordship as Chief Magistrate of the capital of the Empire, and to invite your co-operation in the formation of this Imperial Institute of the Colonies and India, as the memorial of Her Majesty's jubilee by her subjects.

Should your Lordship concur in this proposal, and be willing to open a fund at the Mansion House, I would suggest that the contributions received be vested in a body of trustees, whom the sovereign would be asked to nominate, and I would further suggest that the institution should be under the permanent presidency of the heir apparent to the throne.

I remain, dear Lord Mayor,

Yours truly,

ALBERT EDWARD, P.

The Right Hon. the Lord Mayor.

THE MANSION HOUSE, LONDON, E.C., 17th September, 1886.

SIR,—I have the honor to acknowledge the receipt of your Royal Highness's letter of the 13th instant, and, in reply, to express the great pleasure it will afford me to give the heartiest co-operation and aid in the formation of the proposed Imperial Institute of the Colonies and India as the memorial of Her Majesty's jubilee by her subjects.

Your Royal Highness truly states that general anxiety is felt to commemorate in some special manner the approaching jubilee of Her Majesty's reign. There will, I am sure, be a universal desire to give expression, in a suitable, and, if possible, adequate way, to the deep attachment, veneration, and loyalty which the Queen's subjects in all parts of her vast dominions entertain for a sovereign whose long and illustrious reign has been productive, under Providence, of many blessings to her people and been rendered memorable by the striking progress in civilization and prosperity developed throughout the Empire.

Difficult as it may be to signalize in a commensurate way the feelings which are thus naturally emphasized at the approach of the jubilee of Her Majesty's reign, I am convinced that the proposal which your Royal Highness indicates, and which has the support of your influence, will be considered singularly appropriate.

It will, therefore, give me much satisfaction to open a fund at the Mansion House for the receipt of contributions, as suggested by your Royal Highness.

I have the honor to remain, Sir, with the greatest respect,

Your Royal Highness's most dutiful and most obedient servant,

JOHN STAPLES, *Lord Mayor*.

His Royal Highness the Prince of Wales, K.G.

COLONIAL AND INDIAN EXHIBITION.

DEAR SIR,—I send to you this circular letter, in accordance with an understanding with the Minister of Agriculture, to inform you that it has been determined,

in agreement with a wish of His Royal Highness the Prince of Wales, to establish an Imperial, Colonial and Indian Institution in London, for the permanent exhibition of the products of the Colonies and India, as a memorial of the jubilee of the reign of Her Majesty the Queen.

The Government of Canada has agreed to ask Parliament to appropriate a sum of £20,000 sterling for this object, and also to give all the exhibits belonging to the Government at South Kensington.

The Provincial Governments of Ontario, Quebec, Nova Scotia, New Brunswick and Prince Edward Island have also agreed to give the exhibits belonging to them, and I have no doubt that the Governments of the Provinces of Manitoba and British Columbia will be willing to do the same.

It is intended that the permanent exhibition shall have the same commercial features as the Colonial and Indian Exhibition, in such a way as to afford information which may lead to business transactions; and, as the permanent exhibition, in the same way as the Colonial and Indian, will undoubtedly be visited by persons from all parts of the globe, having commercial interests in the exhibits and the information afforded in connection with them, it is believed that such an exhibition will be an important means of extending trade in Canadian products, natural, manufactured and artistic.

I hope, therefore, that you will kindly aid this undertaking by giving, or allowing to remain, either the whole or a portion of your exhibits, as may be required to make this exhibition of the products of agriculture, horticulture, the dairy, arts, industries and educational appliances of Canada as comprehensive as possible. The question of replacing exhibits, for the reason of progress of invention, or for other reasons, may be left to be subsequently dealt with.

I shall be greatly obliged if you will send a prompt reply, addressed to me, either directly to the Colonial and Indian Exhibition, South Kensington, London, England, or through the Department of Agriculture at Ottawa.

Yours faithfully,

CHARLES TUPPER, *Executive Commissioner.*

9 VICTORIA CHAMBERS, LONDON S.W., 15th December, 1886.

SIR,—I have the honor to acknowledge the receipt of the following cablegram from Sir John Macdonald, dated 11th December, 1886:—

“Canada agrees to give £20,000 as loyal tribute to Her Majesty, to be disposed of as she pleases, but Government declines further interference or expenditure as at present advised.”

I think it right to place upon record the present position of the Imperial Institute proposals, originally formulated by His Royal Highness the Prince of Wales, and in connection with which I visited Canada in August last.

The Government will be aware that I was authorized to issue a circular, a copy of which is enclosed, to all the exhibitors in the Canadian section of the Colonial and Indian Exhibition. This document explains clearly the proposed action of the Dominion and Provincial Governments that I had consulted, at that time, in regard to the Institute, as then contemplated. I am glad to be able to say that the replies of the exhibitors were of a gratifying nature, and ensured that the Canadian representation would be in every way effective and satisfactory.

After my return to London several meetings of the Colonial Executive Commissioners were held, and I enclose printed copies of the proceedings, in order that the Government may be made aware of the discussions that took place.

In the meantime the matter was being much discussed in the press, and in general circles, and the prevailing feelings were explained in the following extract from my letter to Sir John Macdonald on 15th November:—

“I have taken care to inform the Prince of Wales as you desire, that Canada will give the £20,000 to the jubilee fund, whatever form it may take. I will write you fully upon the Institute matter, so soon as anything is decided. Two serious

obstructions have sprung up in opposition to the Prince's plan. The Chambers of Commerce object to its being only for the Colonies and India, and the theatres object to the attractions—gardens and music. Both of these points will have to be conceded to get the money."

I also found it necessary to cable to the Minister of Agriculture on 19th November, as follows:—

"Institute will not likely be opened until buildings constructed, say three years hence. Propose to return all unsold private exhibits and bulk Government exhibits, and Local Government collections."

It will be observed that the Prince of Wales had appointed a committee to enquire into, and to mature a scheme, after consultation with the representatives of the Colonies, for the proposed Imperial Institute. I forward a copy of a letter I, in common with my colleagues the agents general, received from the honorary secretary to the committee on 23rd November, enclosing a scheme which "had been submitted to H.R.H. the Prince of Wales, and had his entire concurrence and approval." I at once called a meeting of my colleagues and submitted to them the draft for a joint reply (copy enclosed), which I suggested should be made to the communication in question. This course was not adopted, but it was decided that I should ask for a further meeting in the terms contained in my letter to the secretary dated the 29th November (copy enclosed).

The committee met our wishes as far as they were able, and it was arranged that we should submit the scheme as thus modified to our respective Governments for their approval. The following cable was sent by the agents general to their Governments:—

"Prince's Committee in communication with agents general, and concurrence of Prince have remodelled basis of Institute. Name Imperial Institute for United Kingdom, Colonies and India. Half entire space in no way inferior to other half reserved for Colonies and India. Each colony to have control of its section, and to Colonies fair share in general management; also contemplated to have from time to time exhibitions of specific industries and products. Buildings constructed before opening. We have stated Colonies contributing lump sum no further amount expected for administration. On your approval being received scheme will be definitely adopted."

I cabled Sir John Macdonald as follows (2nd December):—

"Prince approves modification Institute scheme giving half space products United Kingdom, buildings constructed before opening. Please cable concurrence;" and upon receipt of his reply sent the enclosed letter to the Secretary of the Institute Committee dated 15th December, 1886.

I may add in conclusion that as instructed by Sir John A. Macdonald, I informed the Committee that Canada would contribute the £20,000 to the Jubilee Fund notwithstanding any modification of the original design of which His Royal Highness the Prince of Wales approved, but I have been careful to state on all occasions that the Dominion would not incur any further liability in connection with the Institute.

I have, &c.,

CHARLES TUPPER.

(Enclosures.)

COLONIAL AND INDIAN EXHIBITION.

DEAR SIR,—I send you this circular letter in accordance with an understanding with the Minister of Agriculture, to inform you that it has been determined in agreement with a wish of His Royal Highness the Prince of Wales, to establish an Imperial, Colonial and Indian Institution in London, for the permanent exhibition of the products of the Colonies and India as a memorial of the Jubilee of the reign of Her Majesty the Queen.

The Government of Canada has agreed to ask Parliament to appropriate a sum of £20,000 sterling for this object ; and also to give all the exhibits belonging to the Government at South Kensington.

The Provincial Governments of Ontario, Quebec, Nova Scotia, New Brunswick and Prince Edward Island have also agreed to give the exhibits belonging to them ; and I have no doubt that the Governments of the Provinces of Manitoba and British Columbia will be willing to do the same.

It is intended that the permanent exhibition shall have the same commercial features as the Colonial and Indian Exhibition in such a way as to afford information which may lead to business transactions ; and, as the permanent exhibition, in the same way as the Colonial and Indian, will undoubtedly be visited by persons from all parts of the globe having commercial interests in the exhibits and the information afforded in connection with them, it is believed that such an exhibition will be an important means of extending trade in Canadian products, natural, manufactured and artistic.

I hope, therefore that you will kindly aid this undertaking, by giving, or allowing to remain, either the whole or a portion of your exhibits as may be required to make this exhibition of the products of agriculture, horticulture, the dairy, arts, industries and educational appliances of Canada as comprehensive as possible. The question of replacing exhibits, for the reason of progress of invention may be left to be subsequently dealt with.

I shall be greatly obliged if you will send a prompt reply, addressed to me, either directly to the Colonial and Indian Exhibition, South Kensington, London, England, or through the Department of Agriculture at Ottawa.

Yours faithfully,

CHARLES TUPPER, *Executive Commissioner.*

COPY of telegram from Prince of Wales to Governors of Colonies, to Viceroy of India, and to Governors of Madras and Bombay.

With reference to my suggestion as to permanency of present exhibition, papers concerning which were transmitted to you on 21st July,

I now propose that memorial of Queen's Jubilee should take the form of a permanent Imperial Institution of the Colonies and India, which would comprise display of Colonial and Indian resources.

Contributions in aid of Institution to be solicited from the Governments and public, both here and in all parts of the Empire.

Funds to be vested in board of trustees appointed by sovereign.

Institution to be under permanent presidency of heir apparent to throne.

Shall be glad to be favored with your views on this subject by cable, and to hear whether your Government is prepared to recommend an annual grant for certain number of years, or if preferred, a sum down.

9 VICTORIA CHAMBERS, LONDON, S.W., 15th December, 1886.

SIR,—I beg to acquaint you, for the information of the committee, that during my visit to Canada in furtherance of the proposals of His Royal Highness the Prince of Wales respecting the Imperial Institute, I caused the circular, a copy of which I enclose to be forwarded to each exhibitor in the Canadian section of the Colonial and Indian Exhibition. This document will explain fully the position taken in the matter by the Dominion Government, and also by those of the Provincial Governments which I had an opportunity of consulting. I may say also that the replies to the circular were of a most satisfactory and gratifying nature, and ensured that the Canadian section of the Institute, as then proposed, would be representative and effective.

After the various meetings that were held, on my return from Canada, of the Colonial Executive Commissioners, I found it necessary to write Sir John Macdonald, the Premier of Canada, in the following terms, on 15th November :—

"I have taken care to inform the Prince of Wales, as you desire, that Canada will give the £20,000 to the jubilee fund, whatever form it may take. I will write you fully upon the Institute matter so soon as anything is decided. Two serious obstructions have sprung up in opposition to the Prince's plan. The Chambers of Commerce object to its being only for the Colonies and India, and the theatres object to the attractions, gardens and music. Both of these points will have to be conceded to get the money."

I also telegraphed to the Canadian Government, on the 19th November, as follows:—

"Institute will not likely be opened until buildings constructed—say three years hence. Propose to return all unsold private exhibits and bulk Government exhibits and Local Government collections."

You will also find enclosed copies of the telegrams sent to our respective Governments by the agents general for Australia and myself as the result of the discussions with the committee respecting the scheme enclosed with your letter. It is right I should say that after my interview with Lord Herschell, I handed the telegram, as modified by His Lordship, to Sir Graham Berry, and that I have no knowledge of the manner in which the despatch came to be prematurely published. My telegram was forwarded to the Canadian Government on 3rd December, and I now have the honor to quote the reply, dated 11th December:—

"Canada agrees to give £20,000 as loyal tribute to Her Majesty to be disposed of as she pleases, but Government declines further interference or expenditure as at present advised."

I shall be glad if you will bring this communication before the Imperial Institute Committee as early as possible.

I am, &c.,

CHARLES TUPPER.

H. F. THOMPSON, Esq., Hon. Secretary Imperial Institute Committee,
1 Buckingham Gate, S.W.

Department of the Secretary of State, 29th December, 1886.

SIR,—I have the honor to acknowledge the receipt of your despatch, No. 487, of the 15th December inst., and of the several enclosures therein mentioned with reference to the proposed establishment of an Imperial, Colonial and Indian Institution, in London, for the permanent exhibition of the products of the Colonies and India, as a memorial of the jubilee of the reign of Her Majesty the Queen, and to state that the matter will receive consideration.

I have, &c.,

G. POWELL, U.S.S.

The Hon. the High Commissioner for Canada,
9 Victoria Chambers, London, S.W., England.

OFFICE OF THE HIGH COMMISSIONER FOR CANADA,
9 VICTORIA CHAMBERS, LONDON, S.W., 28th December, 1886.

DEAR SIR JOHN,—Referring to my previous letter, I now beg to send you the report of the Prince of Wales Committee on the subject of the Imperial Institute.

You will no doubt have learned from Mr. Carling that I am retaining here the mineral exhibit and such other articles as are not likely to take any injury, to be handed over to the Institute, under proper arrangements, as soon as it takes definite form and shape. I venture to suggest, also, that it would be desirable for the Government to consider the proposals of the committee, although they are somewhat different to the original scheme, in order that a decision may be arrived at as to the part that will be taken by Canada in the matter. I am certainly of opinion that if the institute comes into existence, the Canadian Government should take measures to ensure that the space allotted to the Dominion should be properly occupied, and I think that the best manufacturers of Canada would arrange to send over and

exhibit their wares at their own expense, considering the pecuniary advantages they have derived from the recent exhibition. This would avoid further expense on the part of the Government, except in so far as they might be disposed to keep up the display of agricultural products, but this would not involve a large outlay, and in view of its importance in encouraging emigration, I have no doubt it would secure the co-operation and aid of the Provincial Governments.

I shall of course keep you advised, from time to time, of the development of the matter.

I am, &c.,

CHARLES TUPPER.

P.S.—It is quite understood by all parties here, that Canada is to incur no expenditure in connection with the organization and maintenance of the Imperial Institute, beyond the £20,000.

Right Hon. Sir JOHN MACDONALD, G.C.B.

C. T.

THE IMPERIAL INSTITUTE.

The following is the report of the committee appointed by the Prince of Wales to frame a scheme for an Imperial Institute:—

The committee appointed by Your Royal Highness to frame a scheme for an Imperial Institute, intended to commemorate the 50th year of Her Majesty's reign, beg leave to submit to Your Royal Highness the following report:

They do not fail to remember that the scheme which Your Royal Highness indicated in your letter of the 13th of September last to the Lord Mayor of London had its origin in the remarkable interest excited by the recent Exhibition, by which not only the material products, resources and manufactures, but the loyal feelings of the great colonies and possessions of Her Majesty's Empire were illustrated in a most signal manner.

The object, therefore, which naturally suggested itself first to the committee was the development, with some necessary modifications, of Your Royal Highness's idea of creating a permanent representation of the resources and progress of the Colonies and India.

On pursuing, however, the consideration of the subject, the committee became persuaded that a memorial really worthy of the jubilee year of Her Majesty's reign could not be confined in its objects to any one part or to some parts of Her Majesty's Empire, and that it must in some form and degree also comprehend a representation of the United Kingdom.

Their desire, therefore, in the following outline of the scheme which they recommend is to combine in a harmonious form, and with a view to some practical and useful purpose, a representation of the Colonies and India on the one hand, and of the United Kingdom on the other.

They submit that this object will be best indicated by giving to the memorial the title of "The Imperial Institute of the United Kingdom, the Colonies and India." They think that the Institute should find its home in buildings of such a character as worthily to commemorate the jubilee year of the Queen's reign, and to afford accommodation suitable for an institution combining the important objects which they now proceed to describe.

It is obvious that several departments of the Institute, such as the hall, conference rooms, &c., which will be found described under the Colonial and Indian section and the United Kingdom section respectively, will be common both to the Colonies and India, and to the United Kingdom, but as others have special relation to a particular portion of Her Majesty's dominions, it will be found convenient to make the following division:—

A.—COLONIAL AND INDIAN SECTION.

The object of the Colonial and Indian section will be to illustrate the great commercial and industrial resources of the Colonies and India and to spread a knowledge of their progress and social condition.

To this end provision should be made for:—

1. The display in an adequate manner of the best natural and manufactured products of the Colonies and India, and in connection with this the circulation of typical collections throughout the United Kingdom.

2. A hall for the discussion of Colonial and Indian subjects, and for receptions connected with the Colonies and India.

3. The formation of Colonial and Indian libraries and establishing in connection therewith reading, news and intelligence rooms.

4. The incorporation in some form with the proposed Institute of the Royal Colonial Institute and Royal Asiatic Society if, as is hoped, it be possible to bring about such a union.

5. The collection and diffusion of the fullest information in regard to the industrial and material condition of the Colonies, so as to enable intending emigrants to acquire all requisite knowledge. Such information might be advantageously supplemented by simple and practical instruction. An emigration office of this character should be in correspondence with the Provincial towns either through the free libraries or by other means so that information may be readily accessible to the people. These objects would be greatly facilitated if, as may be hoped, the Government should consent to the transfer to the buildings of the Institute of the recently formed Emigration Department, which would by a close connection with the Institute, largely increase its usefulness.

Facilities might be afforded for the exhibition of works of Colonial and Indian art.

It is also considered desirable that means should be provided, not for a general exhibition but for occasional special exhibitions of Colonial and Indian produce and manufactures. At one time a particular Colony or portion of the Empire may desire to show its progress; at another time a general comparison of particular industries may be useful, while the permanent galleries would exhibit the usual commercial or industrial products of the several Colonies and India. The occasional exhibitions would stimulate and enlist the sympathies of Colonial and Indian producers and keep up an active co-operation with the industrial classes of this country.

B.—UNITED KINGDOM SECTION.

The leading objects of this section will be to exhibit the development during Her Majesty's reign, and the present condition of the natural and manufactured products of the United Kingdom, and to afford such stimulus and knowledge as will lead to still further development, and thus increase the industrial prosperity of the country.

We submit that these objects may be carried out by making provision for the following purposes:—

1. Comprehensive collections of the natural products of the United Kingdom, and of such products of other nations as are employed in its industries, with full, scientific, practical and commercial information relating thereto.

2. Illustrations of manufactured products, typical of their development and present condition, of trades and handicrafts and their progress during the Queen's reign, including illustrations of foreign work when necessary for comparison, together with models illustrating naval architecture, engineering, mining, and architectural works.

3. A library for industrial, commercial and economic study, which should contain standard works and reports on all subjects of trade and commerce. It will be desirable also to include a library of inventions of the Empire, and as far as possible of the United States and other countries.

4. Reading and conference rooms supplied with English, Colonial, and foreign commercial and technical periodicals, and a fully equipped map room for geographical and geological references. The conference rooms would be of value for meetings of Chambers of Commerce, and other bodies of a kindred nature.

5. The promotion of affiliation with the Imperial Institute of commercial museums in the city of London and in the commercial centres of the Provinces. To these the Institute would contribute specimens, samples, and exhibits of the commercial products likely to be specially valuable to particular localities. There should also be an organization to connect the Imperial Institute with the provincial centres, by lectures, conferences, the circulation of specimens, and other means.

It is hoped that the Institute may lead to the organization of high schools of commerce, such as are now established in the chief commercial towns of most continental countries, but which have as yet, unfortunately, no existence in the United Kingdom.

6. The building will also advantageously afford accommodation for (a) comparing and examining samples by the resources of modern science; and (b) the examination of artisans under the various schemes already existing for the promotion of technical education.

Space should be provided for occasional exhibitions of separate industries carried on in great provincial centres: for example, there might at one time be an exhibition of iron manufactures, at another of pottery, at another of textile fabrics, &c, which would tend to stimulate improvement in the different departments of industrial life. This object might be assisted by separate exhibitions of the handiwork of artisans.

The committee having detailed the general nature of their suggestions under these heads, desire to add that they do not anticipate the exhibits in the collections remaining unchanged. They contemplate that as improvements are made from time to time the later and better results would displace those out of date.

They have had to consider how the space should be distributed between the United Kingdom on the one hand and the colonies and India on the other, and they recommend that whatever portions of the buildings is not required for purposes manifestly common to both should be allotted to the two sections fairly in equal parts.

(C.) GOVERNMENT OF INSTITUTE.

The committee recommend that a new body entirely independent of any existing organization should be created for the government of the Institute. This body should be thoroughly representative of the great commercial and industrial interests of the Empire. The Colonies and India should have a fair share in the government of the Institute, and each colony should have special charge of its own particular department, subject, of course, to the general management of the entire institution.

The method of carrying this out would be prescribed by the charter after full consideration by Her Majesty in Council.

(D.) SITE.

The committee being fully conscious of the advantage of a central position for the Institute have considered the various possible sites, and have as far as has been within their power obtained estimates of their cost.

To carry out the several objects which the committee have indicated a large space is necessary. The committee have been unable to find any such suitable site in the central parts of London, except at a cost which looking at the probable amount of subscriptions, would, after the purchase of the ground leave a sum wholly inadequate for the erection and maintenance of the buildings and for carrying out the objects of the Institute.

The site of about five acres recently secured for the new Admiralty and War Offices is valued at £820,000, or rather over £160,000 an acre; that now vacant in Charles street, opposite the India Office, is less than an acre and would cost at least £125,000; probably another acre might be secured by private contract, so that the value of a limited site in this position would not be less than £250,000. It has been suggested that a single acre not far from Charing Cross might be obtained for £224,000. Two and a half acres on the Thames embankment have been offered for £400,000; and it

is stated that six acres might be procured from Christ's Hospital at £600,000. Another good central position has been suggested, consisting of two and a half acres, which has been valued at £668,000.

It is, of course, probable that these sites might be obtained at somewhat less than the prices asked, but allowing for this it is obvious that the purchase of any adequate area would involve the expenditure of a quarter to half a million.

The Committee have therefore been forced to abandon the hope of obtaining a central site within the limits allowed by any probable subscription.

The attention of the Committee was then drawn to the property at South Kensington belonging to the commissioners for the exhibition of 1851. This property was bought out of the profits of that exhibition with the express object of offering sites for any large public buildings which might be required for the promotion of science and art.

Under these circumstances the Committee submit to Your Royal Highness that the Imperial Institute may well establish a claim for the grant of a site of sufficient magnitude on property bought and reserved for public institutions of this character.

Though sensible of the objections that may be urged against the situation at South Kensington, the Committee think that the advantage must be obvious of obtaining a sufficient site virtually free of cost, so that the whole of the subscriptions may be devoted to providing a building for and establishing and maintaining the Institute.

The Committee, while guided in the recommendation of a site by the considerations they have indicated, think it right to add that there are some incidental advantages connected with that at South Kensington.

In that locality are combined the City and Guilds Technical College, the Royal College of Music, and the Government Museums and Schools of Science and Art, which ought to be in immediate proximity to an Imperial Institute of the character which we have described.

The technical character of the collections and exhibitions of the Imperial Institute has a natural connection with the collections of science and art in the Government museums.

E.—GENERAL OBSERVATIONS.

An Imperial Institute for the United Kingdom, the Colonies and India would fail in its chief object if it did not constantly keep in view that it ought to be a centre for diffusing and extending knowledge in relation to the industrial resources and commerce of the Empire.

The necessity for technical education is now fully appreciated, because the competition of industry has become, in a great measure, a competition of trained intelligence. The Committee, however, do not recommend that the Imperial Institute should aspire to be a college for technical education. Many of the large towns in Great Britain have recently established colleges or schools of science and art. The Imperial Institute might serve to promote technical education in these and to unite them with colleges of larger resources which have been founded or formed branches for the purpose in the metropolis. It is too much to hope that an active co-operation of this character between the provincial centres and London could be at once undertaken by the Imperial Institute. But the Committee bear in mind that, in their last report, the commissioners of 1851 have indicated an intention to assist in carrying out such a scheme. If the commissioners would contribute three or four thousand pounds annually it would be possible to establish scholarships which might enable promising candidates of the working classes to attend the local institutions, and even when it was desired to complete their technical education in colleges of the metropolis. In addition to this aid the Imperial Institute might be able in other ways to promote the foundation of scholarships both in connection with the colonies and provincial centres in the hope of still further extending these benefits to the working classes.

In conclusion the committee submit that an Imperial Institute such as they have sketched in broad outline, would form a fitting memorial of the coming year when Her Majesty the Sovereign of this Empire will celebrate the jubilee of a happy reign. It would be an emblem of the unity of the Empire, embracing as it does all parts of the Queen's dominions, and tending to promote that closer union between them, which has become more and more desired. It would exhibit the vast area, the varied resources, and the marvellous growth, during Her Majesty's reign, of the British Empire. It would unite in a single representative act the whole of her people; and since both the purpose and the effect of the Institute will be to advance the industrial and commercial resources of every part of the Empire, the committee entertain a confident hope that Her Majesty's subjects, without distinction of class or race, will rejoice to take part in offering this tribute of love and loyalty.

HERSCHELL, Chairman.
 CARNARVON,
 REVELSTOKE,
 ROTHSCHILD,
 G. J. GOSCHEN,
 LYON PLAYFAIR,
 HENRY JAMES,
 HENRY T. HOLLAND,
 H. H. FOWLER,
 C. T. RITCHIE,
 FRED. LEIGHTON, President Royal Academy,
 ASHLEY EDEN,
 OWEN T. BURNE,
 REGINALD HANSON, Lord Mayor,
 J. PATTISON CURRIE, Governor, Bank of England,
 JOHN STAPLES,
 FRED. ABEL, Vice-President Society of Arts,
 J. H. TRITTON, Chairman, London Chamber of Com.,
 NEVILLE LUBBOCK,
 HENRY BROADHURST.

OFFICE OF THE HIGH COMMISSIONER FOR CANADA,
 9 VICTORIA CHAMBERS, LONDON, S.W., 13th January, 1887.

SIR,—With reference to previous correspondence on the subject of the Imperial Institute, I have the honor to transmit to you, for the information of the Government, a copy of a letter addressed to me by Sir Francis Knollys, conveying an invitation of the Prince of Wales that I should become a member of the temporary committee which His Royal Highness has formed for the purpose of dealing with the question of the future government of the Institute, and with other points connected with the undertaking, together with a copy of the reply I have returned thereto.

I also transmit a copy of a further letter from Sir Francis Knollys, with a request from the Prince of Wales that I would second a resolution at a meeting which was held at the Mansion house yesterday on the subject, together with a copy of my reply.

I further enclose, for the information of the Government, copies of the resolutions of a meeting held at St. James' Palace yesterday, under the presidency of the Prince of Wales, together with a copy of a note from his Royal Highness inviting me to attend the meeting in question.

To make the correspondence complete, I also forward cuttings from to-day's *Times*, containing accounts of the two meetings held yesterday at St. James' Palace and the Mansion House, to which I have before referred.

I have, &c.,

CHARLES TUPPER, *High Commissioner.*

The Hon. the Secretary of State, Ottawa, Canada.

MARLBOROUGH HOUSE, PALL MALL, S.W., 30th December, 1886.

DEAR SIR CHARLES TUPPER,—The Prince of Wales feels that the time has now arrived when the Colonies should be represented on the temporary committee which he has formed for the purpose of dealing with the question of the future government of the Imperial Institute, and with other points connected with the undertaking.

I am, in consequence, desired by His Royal Highness to express a very sincere hope that you may be induced to afford him the benefit of your services by consenting to become a member of this committee in conjunction with Sir Saul Samuel.

Believe me, &c.,

FRANCIS KNOLLYS.

97 CROMWELL ROAD, LONDON, S.W., 5th January, 1887.

DEAR SIR FRANCIS KNOLLYS,—I have just received your letter of 30th December, on my return from Paris, and beg, in reply, to say that my best services are always at the disposal of H. R. H. the Prince of Wales, and that it will give me great pleasure to become a member of the committee of the Imperial Institute, as proposed.

Yours, &c.,

CHARLES TUPPER.

MARLBOROUGH HOUSE, PALL MALL, S.W., 10th January, 1887.

DEAR SIR CHARLES TUPPER,—The Prince of Wales desires me to say how highly gratified he would feel if you would kindly consent to attend the meeting which is to be held at the Mansion House, at half-past three o'clock on Wednesday next, in support of the Imperial Institute, and if you would also be so good as to second a resolution that will be proposed by Lord Lorne on the occasion.

Believe me, &c.,

FRANCIS KNOLLYS.

97 CROMWELL ROAD, LONDON, S.W., 11th January, 1887.

DEAR SIR FRANCIS KNOLLYS,—In reply to your note received this morning, I beg you will inform His Royal Highness the Prince of Wales that it will give me much pleasure to attend the meeting at the Mansion House, and second the resolution proposed by the Marquis of Lorne.

Yours, &c.,

CHARLES TUPPER.

MARLBOROUGH HOUSE, PALL MALL, S.W., 11th January, 1887.

SIR,—I beg to invite the favor of your attendance at the meeting to be held at St. James' Palace to-morrow (Wednesday) at 12.45 (midday) o'clock in the furtherance of the objects of the Imperial Institute.

I am, &c.,

ALBERT EDWARD, P.

The Hon. Sir CHARLES TUPPER, G.C.M.G., C.B., 9 Victoria Chambers, S.W.

IMPERIAL INSTITUTE OF THE UNITED KINGDOM, THE COLONIES, AND INDIA.

Meeting at St. James' Palace, on Wednesday, 12th January, 1887.

His Royal Highness the Prince of Wales, K.G., President, in the chair.

Resolutions :

Proposed by the Right Hon. the Earl Spencer, K.G., seconded by the Right Hon. the Lord Provost of Edinburgh :

1. This meeting is of opinion that the foundation of an Imperial Institute for the United Kingdom, the Colonies and India, would—as an emblem of unity of the

Empire and as an exponent of its industries and commercial resources—be a national memorial fitting and worthy to commemorate the completion of the fiftieth year of Her Majesty's reign.

Proposed by the Right Hon. the Lord Viscount Hampden, G.C.B., seconded by the Right Hon. the Lord Mayor of York :

2. That an appeal be made to the subjects of the Queen throughout Her Majesty's Dominions to give a generous support to the establishment and maintenance of such Imperial Institute.

Proposed by the Right Hon. the Lord Mayor of London, seconded by the Right Worshipful the Mayor of Newcastle-on-Tyne :

3. That the best thanks of this meeting be expressed to His Royal Highness the Prince of Wales, for his exertions in framing and presenting the scheme of an Imperial Institute which, in the opinion of this meeting, will, if established, confer great and important benefits on the subjects of the Queen.

THE IMPERIAL INSTITUTE.

MEETING AT ST. JAMES' PALACE.

Yesterday afternoon the Prince of Wales presided at a meeting of the members of the organizing committee of the proposed Imperial Institute of the United Kingdom, the Colonies, and India, which it is intended to establish in commemoration of the jubilee year of Her Majesty's reign. The meeting was held at a quarter to 1 o'clock in the banqueting room of St. James' Palace, when there were present Lord Herschell (chairman), the Earl of Carnarvon, K.G., Lord Revelstoke, Lord Rothschild, the Right Hon. Sir Lyon Playfair, K.C.B., M.P., the Right Hon. Sir Henry James, Q.C., M.P., the Right Hon. Sir Henry T. Holland, M.P., the Right Hon. Sir John Rose, G.C.M.G., the Right Hon. H. H. Fowler, M.P., Sir Frederic Leighton (President of the Royal Academy), the Hon. Sir Charles Tupper, G.C.M.G., C.B., Sir Saul Samuel, K.C.M.G., C.B., Sir Lowthian Bell, Sir Edward Guinness, Sir Ashley Eden, K.C.S.I., C.I.E., Sir Owen T. Burne, K.C.S.I., Sir Reginald Hanson (Lord Mayor of London), Mr. J. Pattison Currie (Governor of the Bank of England), Sir John Staples, K.C.M.G., Sir Frederick Abel, C.B., D.C.L., F.R.S. (organizing secretary), Mr. W. H. Houldsworth, M.P., Mr. J. H. Tritton (chairman of the London Chamber of Commerce), Mr. Neville Lubbock, and Mr. A. Waterhouse, R.A., members of the organizing committee. The following noblemen and gentlemen had also accepted invitations to be present :—The Duke of St. Albans, the Duke of Buckingham and Chandos, G.C.S.I., the Marquis of Bristol, the Earl of Bandon, the Earl of Bradford, the Earl of Caithness, the Earl of Cork, K.T., the Earl of Cawdor, the Earl of Ducie, the Earl of Dysart, the Earl of Dartrey, the Earl Granville, K.G., the Earl of Howe, the Earl of Ilchester, the Earl of Lanesborough, the Earl of Lucan, the Earl of Lovelace, the Earl of Mount Edgecumbe, the Earl of Strafford, Earl Spencer, K.G., the Earl of Verulam, Viscount Hampden, G.C.B., Viscount de Vesci, Lord Hothfield, Lord Herries, Lord Harlech, Lord Kensington, Lord Rayleigh, Lord Wantage, V.C., K.C.B., Lord Maurice Fitzgerald, the Right Hon. A. J. Mundella, M.P., the Right Hon. Sir Robert Peel, the Right Hon. Sir G. F. Bowen, Sir James Paget, the Right Hon. Sir Thomas Clark (Lord Provost of Edinburgh), the Lord Provost of Glasgow, the Right Hon. J. Terry (Lord Mayor of York), the Right Hon. Spencer Walpole (Governor of the Isle of Man), Sir J. R. Bailey, Sir J. M'Garel-Hogg, Sir Henry W. A. Ackland, K.C.B., Sir John Lubbock, M.P., Sir H. Dashwood, Sir Frederick Bramwell, F.R.S., Sir Edward Colebrooke, Hon. J. C. Dundas, Lieutenant-Colonel Edward H. Cooper, Mr. H. R. Hughes, Mr. C. W. Townley, Professor Huxley, Professor Tyndall, Sir J. E. Millais, the Master of the Cloth-workers' Company, the Master of the Mercers' Company, the Prime Warden of the Fishmongers' Company, the Prime Warden of the Goldsmiths' Company, the Master of the Merchant Tailors' Company, the Master of the Skinners' Company, the Master of the Grocers' Company, the Master of the Ironmongers' Company, Colonel Hambro, M.P.,

Professor Michael Foster, the Mayors of Arundel, Andover, Abingdon, Ashton-under-Lyne, Beverley, Bristol, Beccles, Bishop's Castle, Birmingham, Boston, Bideford, Brecon, Bridport, Burslem, Barnsley, Bacup, Basingstoke, Barnstaple, Blandford, Bridgwater, Bury, Banbury, Blackburn, Brighton, Chippenham, Chorley, Cheltenham, Carlisle, Clitheroe, Croydon, Calne, Coventry, Canterbury, Crewe, Colchester, Chichester, Cardiff, Cambridge, Daventry, Darlington, Droitwich, Derby, Dudley, Dewsbury, Darwen, Devenport, Exeter, Eastbourne, Evesham, Flint, Folkestone, Gloucester, Guildford, Godalming, Grantham, Gravesend, Harrogate, Hull, Hythe, Hanley, Huddersfield, Halifax, Huntingdon, Harwich, Hereford, Hartlepool, Hastings, Ipswich, Kingston-on-Thames, Keighley, Kidderminster, King's Lynn, Leamington, Lowestoft, Lostwithiel, Leeds, Llanfyllin, Lincoln, Longton, Louth, Lancaster, Lydd, Liskeard, Luton, Launceston, Leicester, Lewes, Malmesbury, Maidenhead, Margate, Middleton, Maldon, Macclesfield, Mossley, Manchester, Maidstone, Montgomery, Norwich, Newport (Mon.), Newport (Isle of Wight), Nottingham, Northwich, Newcastle-on-Tyne, Newcastle-under-Lyne, Oxford, Plymouth, Peterborough, Portsmouth, Poole, Preston, Pembroke, Penzance, Queenborough, Ripon, Richmond (Yorkshire), Romsey, Rotherham, Reigate, Rye, Reading, Sheffield, Scarborough, Sunderland, Saltash, Southampton, Sutton Colfield, South Molton, Sandwich, St. Albans, St. Ives, Stamford, Stoke, Stafford, St. Helen's, Salisbury, Stockport, Salford, Sligo, Stratford-on-Avon, Swansea, Saffron Walden, Totnes, Torrington (Great), Truro, Taunton, Tiverton, West Ham, Walsall, Winchester, Wokingham, Wilton, Wallingford, West Bromwich, Worcester, Wigan, Wolverhampton, Wareham, Windsor, Warwick, Wednesbury, Wexford, Weymouth, Yeovil and Yarmouth (Great); the Deputy Mayors of Christchurch, Rochester and Yeovil; the Clerks of the Peace for several counties; the Provosts of Dumfries, Greenock, Haddington, Peterhead, Stirling and Stranraer; the Town Clerks of Birkenhead, Bury, Brighton, Bradford, Devonport, Edinburgh, Hull, Leeds, Leicester, Nottingham, Norwich, Newcastle-on-Tyne, Preston, Sheffield, Salford, Sunderland, Wolverhampton and West Ham; and a large number of chairmen of urban authorities throughout the kingdom.

The Prince of Wales, who on entering the room was warmly received, took the chair at 1 o'clock, being accompanied by Prince Albert Victor of Wales, who sat on his right hand.

The Prince of Wales, who, on rising, was loudly cheered, said:—My Lords and Gentlemen,—You are doubtless aware of the general feeling on the part of the public that some signal proof of the love and loyalty of Her Majesty's subjects throughout her widely extended Empire should be given to the Queen when she celebrates the 50th year of her happy reign. (Cheers.) In order to afford to the Queen the fullest satisfaction, the proposed memorial should not be merely personal in its character, but should tend to serve the interests of the entire Empire, and to promote a feeling of unity among the whole of Her Majesty's subjects. (Cheers.) The desire to find fitting means of drawing our colonies and India into closer bonds with the mother country, a desire which of late has been clearly expressed, meets, I am sure, with the Queen's warmest sympathy. (Cheers.) It occurred to me that the recent Colonial and Indian Exhibition, which presented a most successful display of the material resources of the colonies and India, might suggest the basis for an institute which should afford a permanent representation of the products and manufactures of the whole of the Queen's dominions. (Hear, hear.) I therefore appointed a committee of eminent men to consider and report to me upon the best means of carrying out this idea. Upon the report of the committee being submitted to me, and after giving every clause my full consideration, it so entirely met with my approval that I accepted all its suggestions, and I therefore directed that a copy of that report should be sent to each of you. (Hear, hear.) As I trust you have mastered the suggestions of that report, I do not propose re-stating them to you in detail, but I would remind you that I propose that the memorial should bear the name of the Imperial Institute of the United Kingdom, the Colonies, and India, and that it must find its home within buildings of a character worthy to commemorate the jubilee year of the Queen's reign. (Cheers.) My proposals also are that the Imperial Institute should be an

emblem of the unity of the Empire, and should illustrate the resources and capabilities of every section of Her Majesty's dominions. (Hear, hear.) By these means every one may become acquainted with the marvellous growth of the Queen's colonial and Indian possessions during her reign, and will be enabled to mark, by the opportunities afforded for contrast, how steadily these possessions have advanced in manufacturing skill and enterprise step by step with the mother country. A representative institute of this kind must necessarily be situated in London, but its organization, will, I trust, be such that benefits will be equally conferred upon our provincial communities, as well as upon the colonial and Indian subjects of the Crown. (Hear, hear.) It is my hope that the institute will form a practical means of communication between our colonial settlers and those persons at home who may benefit by emigration. Much information and even instruction may beneficially be imparted to those who need guidance in respect to emigration. You are aware that the competition of industry all over the world has become keen, while commerce and manufactures have been profoundly affected by the recent rapid progress of science, and the increased facilities of inter communication offered by steam and the electric telegraph. In consequence of these changes all nations are using strenuous efforts to produce a trained intelligence among their people. The working classes of this country have not been slow to show their desire for improvement in this direction. They wish to place themselves in a position of intellectual power by using all opportunities offered to them to secure an understanding of the principles, as well as of the practice, of the work in which they are engaged. (Hear, hear.) No less than 16,000,000 persons from all parts of the kingdom have attended the four exhibitions over which I presided, (cheers), representing fisheries, public health, inventions, and the colonies and India, and I assure you I would not have undertaken the labor attending their administration had I not felt a deep conviction that such exhibitions added to the knowledge of the people, and stimulated the industries of the country. (Cheers.) I have on more than one occasion expressed my own views, founded upon those so often enunciated by my lamented father, that it is of the greatest importance to do everything within our power to advance the knowledge as well as the practical skill of the productive classes of the Empire. (Cheers.) I therefore commend to you as the leading idea I entertain, that the institute should be regarded as a centre for extending knowledge in relation to the industrial resources and commerce of the Queen's dominions. With this view it should be in constant touch, not only with the chief manufacturing districts of this country, but also with all the colonies and India. Such objects are large in their scope, and must necessarily be so, if this institute is worthily to represent the unity of the Empire. To some minds the scheme may not be sufficiently comprehensive, because it does not provide for systematic courses of technical instruction in connection with the collections and libraries of the proposed institute. I would be the last person to undervalue this suggestion. I am well aware that the advantages we have enjoyed in the competition of the world by the possession of fuel, combined with large mineral resources and by the maritime habits of our people, are now becoming of less importance, as trained intellect has in other countries been more and more applied to productive industry. (Hear, hear.) But I know that this truth has already penetrated our centres of manufacturing activity, for many of the large towns have founded colleges and schools of science and art to increase the intellectual factor of production. London has also taken important steps in the same direction. The Imperial Institute should be a supplement to, and not a competitor with, other institutions for technical education in science and art both at home and in the colonies. At the same time, I trust that the institute will be able to stimulate and aid local efforts by directing scholarships for the working classes into suitable channels, and by other similar means. (Hear, hear.) Though the institute does not engage in the direct object of systematic technical education, it may well be the means of promoting it, as its purpose is to extend an exact knowledge of the industrial resources of the Empire. It will be a place of study and resort for producers and consumers from the colonies and India when they visit this country for business or pleasure, and they, as well as the merchants and manufacturers of the United Kingdom, will

find in its collections, libraries, conference and intelligence rooms, the means of extending the commerce and of improving the manufacturing industries of the Empire. I trust, too, that colonial and Indian subjects visiting this country will find some sort of social welcome within the proposed building. This institute will thus be an emblem, as well as a practical exponent, of the community of interests and the unity of feeling throughout the extended dominions of the Queen. (Cheers.) From the close relation in which I stand to the Queen, there can be no impropriety in my stating that if Her subjects desire, on the occasion of the celebration of Her 50th year as sovereign of this great Empire, to offer her a memorial of their love and loyalty, she would specially value one which would promote the industrial and commercial resources of Her dominions in various parts of the world (cheers), and which would be expressive of that unity and co-operation which Her Majesty desires should prevail among all classes and races of Her extended Empire. (Hear, hear.) My lords and gentlemen, I have invited you to meet on this occasion in order that I may appeal to you to give me your assistance in establishing and maintaining the Imperial Institute. If you approve of the views I have expressed, I am certain that I may rely upon your strenuous co-operation to carry them into effect. (Hear, hear.) I admit that it has not been without anxiety that I resolved to make the propositions I have submitted to you, but confidence and support come to me in the knowledge that I can appeal to you, and through you to the whole country, to give your aid to a work which I believe will be of lasting benefit to this and future generations. (Loud cheers.)

Earl Spencer, rising to move the first resolution, said: May it please Your Royal Highness, my Lords and Gentlemen. It is a great honor to me to have received Your Royal Highness' commands to move the first resolution at this very important meeting. I wish, Your Royal Highness, that I had eloquence and power of speech adequate to express what I ought to say on such a memorable occasion. Your Royal Highness, it has been customary in this nation, as in others, to mark particular epochs in the history of individuals, of nations, and of institutions. Those epochs are standpoints whence we may review the history of the past. They are always, even on ordinary occasions, of interest, but the present occasion, I would say, is one of national importance. (Cheers.) We have not to celebrate the jubilee of a private person; we have to celebrate the jubilee of an illustrious personage, beloved and revered over the whole Empire (cheers), the head of our nation, the Sovereign of an Empire which contains hundreds of millions of human beings in every quarter of the globe. (Cheers.) I need not dwell further on the present considerations attending this jubilee year at any length, but I feel I should not be carrying out my duty if I did not allude in a very few words to Her Majesty herself. We all feel what a great debt this nation and the Empire owe to the Queen (cheers)—not only for the private example which she has set to all men and women who are her subjects, an example which must have had great effect and influence in society all over the world (hear, hear), but also for the manner in which she has performed her duties as a constitutional Sovereign (cheers)—setting in this respect an example to all other Sovereigns in the world, for without this we should not be now celebrating the 50th year of Her Majesty's reign in the manner in which we are now about to do. (Cheers). If I pass to general considerations, I think I may say that there has been nothing more remarkable during the fifty years of Her Majesty's reign than the rapid development and growth of the population, of the wealth, and of the commerce of the Empire. Another thing as remarkable is the great and growing interest which all people in this kingdom take in the affairs of the most distant parts of the Empire. At home we have had development to a great extent. We have seen an immense accession to wealth and commerce; we have seen education diffused in the most remarkable way. Happily this has been accompanied by a diminution of crime (hear, hear); and though in another respect there is a great deal yet to be done, we have seen an immense improvement in the material happiness and prosperity of the working classes of the country. (Cheers.) Coupled with all that, I think I may say there never was a time when the people as a whole rallied more generously and heartily

in support of the Crown and Constitution. (Cheers.) In India, though we have to mark sad events years ago, we may congratulate ourselves on the great step which was made in taking the government of that immense dependency into the hands of the Queen's Ministers. That, I believe, has increased the benefits conferred by Government on the millions and millions of people who dwell in that land. (Hear, hear.) The colonies have developed, as His Royal Highness said, step by step with the Mother Country. We see nations of our own race and blood rising up, governing themselves by responsible Governments, and yet with all that we find the most intense devotion and enthusiasm to the Crown and to this country. (Cheers.) We had a notable instance of that a few years ago, when they came and volunteered their aid to us in Africa with arms and men. (Cheers.) These are all considerations that come before us when we look back at those fifty years of Her Majesty's reign, and what we have to do is try and find some memorial worthy of Her Majesty and of the affection which we feel for her, and to mark the great events which have passed during her reign—events at which I have only glanced in the few remarks I have made. Your Royal Highness has been good enough to take great pains with regard to this matter, and has proposed to the country a scheme. It is to consider that scheme that we have met here to-day, and I will venture to say that there is no memorial that could be more appropriate or more worthy of Her Majesty and of the glorious history of Her reign than the proposal which Your Royal Highness has made. In this country we are often unfortunately divided by party feeling; it may be sometimes by religious feeling, sometimes by political feeling, but all of us are at one in a patriotic desire for the unity and strength of the Empire. (Cheers.) We all have local interests to subserve, and the strength of this country has been in no small degree promoted and matured by the development of local interests. But we have the higher common interest of being citizens of the great Empire over which the Queen reigns. Her Majesty's jubilee is an event which unites us all together without any difference of feeling, and it is one of those rare occasions which we ought not to lose sight of, but should seek to utilize to the fullest possible extent. We cannot more worthily do honor to it than by coming forward to assist this Imperial Institute, which will be such a notable emblem of the unity and strength of the Empire. (Cheers.) The institute, as Your Royal Highness has said, is to be placed in London. Now, London is the metropolis of the Empire. It is not to promote a mere local London interest, however, that we place this institute here; it is placed here because London is the only place which is worthy to have a memorial, not only for the United Kingdom, but for all the Queen's dominions, including India and the colonies at large. His Royal Highness' wish is that the influence of this institute should spread to every part of the United Kingdom as well as to the colonies. As he said, he wishes that there may be meetings here to exchange views on a variety of subjects. I understand that the idea is also to have schools of commerce throughout the country, and that the institute should be able to assist technical education in every way. These are all matters of the greatest importance. They are all matters in which the provinces as well as London will have a direct interest. I fear I have already trespassed too long on the time of this meeting, and I will now close by moving the first resolution, which I think in a proper way sets forth the objects we have in view. I beg to move:—"This meeting is of opinion that the foundation of an Imperial Institute for the United Kingdom, the Colonies, and India would—as an emblem of unity of the Empire, and as an exponent of its industries and commercial resources—be a national memorial fitting and worthy to commemorate the completion of the 50th year of Her Majesty's reign."

The Lord Provost of Edinburgh: I have the greatest pleasure in seconding the resolution moved by Lord Spencer. As the chief magistrate of the metropolis of Scotland, I am here more to listen and report than to say much; but I am quite sure that such an object as this, commended by your Royal Highness, and supported and welcomed by Her Majesty the Queen, whom we all love and revere (cheers), will carry the very greatest possible weight in Her Majesty's northern dominions. (Cheers.) In no part of her vast Empire is the Queen more beloved than in her

northern kingdom; and although Scotch people may be slow to move, yet when once they are thoroughly acquainted with the bearings of the scheme, they will with their proverbial fervor throw themselves into this most important matter. (Cheers.)

The resolution was then put by his Royal Highness and carried unanimously.

Viscount Hampden, who was cheered on rising, said: I rise very willingly to propose the resolution which has been placed in my hands, but at the same time I cannot but feel painfully that the subject of it being so large I shall not be able to do justice to it. There are some things which we must take as accepted, and among those we must accept this point—the loyalty of the English people. (Cheers.) Having passed the best part of a long life in the House of Commons, I naturally regard the past half century of our gracious Queen's reign from the point of view of a Parliamentary man. The quality for which Her Majesty has been most conspicuous throughout that long period has been fidelity to the Constitution. (Cheers.) The Queen has always been prompt to recognize and respect the Constitution under which we have the privilege to live, and in all the varied Ministerial changes of the last half century the Queen has invariably called to her councils those advisers whom she had reason to believe represented the public opinion of her people. (Cheers.) In thus acting Her Majesty has shown her trust in her people and her people have trusted her. (Cheers.) In this mutual trust between the Sovereign and the people lies in great measure the secret of the loyalty of the people to Her Majesty's person and throne. (Cheers.) But apart from these considerations of the constitutional action of the Sovereign, the popularity of Her Majesty with the millions of her subjects throughout all parts of the globe is due in great measure to the experience which her people have had of the domestic life of the Queen. (Cheers.) They have witnessed her career as our Sovereign, first as a wife and a mother, the light and life of a well-ordered happy English home (hear, hear), and they have seen her subsequently bowed down with sorrow arising from the death of the Prince Consort of honored memory. Since that event the heart of her people has gone out to the Queen in sympathy with her in her sorrow and affliction. (Hear, hear.) The resolution which has been placed in my hands invites and appeals to all the subjects of Her Majesty throughout her dominions in support of the object which His Royal Highness has brought under our consideration. We must bear in mind the large extent of the dominions of the Queen. Beginning with Canada on the west, with India and Australasia in the east, with the Cape in the south, and with islands in almost every sea, the extent of Her Majesty's dominions surpasses even that of the old Empire of Rome. It has been said that in area the Queen's dominions cover one-fifth of the habitable globe. We have no very certain statistics with regard to the population subject to the Queen's sceptre, but I shall be within the mark if I put it as including upwards of 300,000,000 of souls. These figures show the magnitude of the responsibility of this great Empire. The resolution which I shall have the honor to propose to you invites you to make an appeal to all the subjects of Her Majesty in these wide dominions. I am persuaded of this, that distances does not affect the loyalty of the Queen's subjects. (Cheers.) We shall find as much loyalty at the Antipodes, and at the extremities of the Empire, as we find even in this chamber. (Hear, hear.) It is no part of my duty to invite you now to consider the organization by which this appeal should be made. That must be left, I apprehend, to local organization throughout the country; but I think one of the results of an organization properly constituted should be that every household in the Queen's dominions should be invited to respond to this appeal. (Cheers.) I was delighted to hear from His Royal Highness that the organization contemplated would be extended to provincial communities, and I certainly gather from the observations of His Royal Highness that provision was amply made for that object. It only now remains for me to submit to you the resolution, which is in these words:—"That an appeal be made to the subjects of the Queen throughout Her Majesty's dominions to give a generous support to the establishment and maintenance of such Imperial Institute."

The Lord Mayor of York, in seconding the resolution, said : Your Royal Highness, my Lords, and Gentlemen,—As an individual I feel very thankful that the suggestion of the Institute has been made in this distinct and complete form. The subjects of Her Majesty in their devoted love and loyalty are seeking day by day to perpetuate the memory of this glorious year of her reign, but they have been relieved from all trouble and difficulty by the putting forward of this most pleasing proposition. (Hear, hear.) The scheme is the natural sequel to the series of exhibitions over which His Royal Highness has presided. It is very gratifying to see the manner in which the proposal has been received by the representatives of the municipalities of the United Kingdom, as it is a testimony that the project will be taken up in such a manner as to render success certain. (Cheers)

The resolution having been put by the Chairman, was carried unanimously amid loud cheering.

The Lord Mayor of London :—Your Royal Highness, my Lords and Gentlemen, —I have been honored by being asked to propose the next and last resolution, and it is one which will need no words of mine to recommend it to your notice, because I am sure that you will receive it with acclamation. The resolution is as follows :—“That the best thanks of this meeting be expressed to His Royal Highness the Prince of Wales, for his exertions in framing and presenting the scheme of an Imperial Institute which, in the opinion of this meeting, will, if established, confer great and important benefits on the subjects of the Queen.” (Cheers.) We know how much time, thought and labor the Prince of Wales has given to the conception and the maturing of this scheme, in which he is so much interested and which we know is the natural outcome of those exhibitions over which he has presided during the last four years, and which have tended so much to the advantage and the pleasure of so many millions of Her Majesty's subjects. (Hear, hear.) I am sure the presence of so many representatives of our municipalities from all parts of Great Britain shows what is the general opinion of what the value of this Institute will be to the Empire. (Cheers.) I hope that the result of this meeting will be a large subscription to the funds to be placed at the disposal of the committee, and I also hope that every gentleman in this room will become the centre of a fund which will increase the sum intended for the purpose of carrying out this scheme. (Cheers)

The Mayor of Newcastle said : The only point from which I can venture to approach this question is as regards its power of increasing the trade of this country and of the colonies and of placing emigration on a sounder and broader basis. As regards our trade it would of incalculable benefit if we could succeed in collecting, in one building, a large amount of reliable information, not only with regard to the nature of the products and industries of the various colonies, but also with regard to their progress from time to time in every direction, with regard to the means whereby they are developing their trade, and still more with regard to what they need and cannot readily obtain. Most business men must recall the great difficulty they have had in obtaining in this country the simplest information as to the actual progress of any colony, and if an ordinary manufacturer wishes to extend his trade, it might make all the difference between success and failure if he could go to the Imperial Institute, and, going from the office of one colony to another, could collect in a few hours the information he wants from each colony with reference to his particular trade. Nor would the benefit be less to the colonies. For example, a colonial farmer or shopkeeper has great difficulty in getting appliances or goods that he wants, while all the time our English makers are suffering for want of work. But they do not know of each other's needs. Again, if a colony begins to grow any new crop or to work any new mineral, it would be a great advantage to be able at once to send specimens of its productions to the Imperial Institute so that they would be immediately known in England. For all manufacturers to be able to go to London and find there the information they require would be a great benefit to trade. (Hear, hear.) But when we consider the all important and pressing question of emigration, the need of local centres becomes still more apparent. A great stimulus would be

given to the best class of emigration if a workman by going to his country town could obtain the most reliable intelligence as to where he individually could best bestow his services. It is sad to find on what vague and untrustworthy information poor men and women often emigrate, and, of course, not only may their lives be simply ruined, but their report and warning must deter others. I should like now to see some of our north country miners emigrate; but not only should they go to a mining colony, but they should go so as to arrive just when they are wanted and not some months too soon or too late. (Hear, hear.) In short, both that the union may be closer and closer between ourselves and the colonies, that more openings may be found for capital and that work may be found for our people at home, and a home may be found for our people abroad, it is to be hoped that this project will be carried out successfully. (Cheers.)

The Lord Mayor having put the resolution, it was carried unanimously.

The Prince of Wales: My Lords and Gentlemen,—Although our business here to-day is now concluded, I feel it would be unbecoming in me not to rise to tender my cordial thanks for the very kind way in which the Lord Mayor of London and the Mayor of Newcastle have brought this resolution to your notice, and the generous and unanimous way in which you have received it. I am glad also, gentlemen, to have this opportunity of expressing to you collectively and individually my deep feelings of gratitude in seeing you all here to-day at a time of year when travelling is neither easy nor pleasant, considering the distances which you have had to come; and also for the kind response which you have made to my appeal. It augurs well for the future, and I feel convinced you will do all in your power to assist me in making this Imperial Institute worthy of the name of our Queen and of her Empire. (Cheers.) The promotion of this scheme is with me a labor of love, and it must, I am sure, strike you all that apart from wishing to do honor to the name of my beloved mother, nobody is more desirous than I am that a monument, if I may use the term, may be erected worthy of her Empire. (Cheers.) Before sitting down, I am anxious on this occasion to tender my sincerest thanks to Lord Herschell and those gentlemen who have given so much time and labor and have acted as my council of advice in the framing of the scheme. I am anxious to tender them my sincerest thanks for what they have done; and to you all once again I thank you for having so kindly heard what I had to say and for coming here so numerously on this occasion.

The proceedings then terminated.

MEETING AT THE MANSION HOUSE.

A crowded and influential public meeting in support of the scheme of the Imperial Institute suggested by the Prince of Wales was held yesterday in the Egyptian Hall of the Mansion House, the Right Hon. Sir Reginald Hanson, Lord Mayor, in the chair. Among those present were Earl Granville, Lord Rothschild, Professor Huxley, Sir Henry James, the Governor of the Bank, Sir George Bowen, Sir Saul Samuel, Sir Arthur Blyth, Sir V. Kennett Barrington, Lord Herschell, Mr. Mundella, M.P., Mr. J. W. Birch, Mr. M. W. Collet (Deputy Governor of the Bank), Mr. Gilliat, M.P., Sir Owen Burne, K.C.S.I., Sir Charles Tupper, G.C.M.G., Sir John Staples, K.C.M.G., Lord Revelstoke, the Marquis of Lorne, Sir Ashley Eden, Mr. Sebag-Montefiore, Sir Lyon Playfair, M.P., Mr. Neville Lubbock, Sir J. F. Garrick, Sir W. A. Hogg, Sir F. Leighton, Sir W. C. Sarjeant, Mr. J. W. Dixon (President of the Sheffield Chamber of Commerce), Mr. Alderman Kuill, Mr. Alderman de Keyser, Mr. Sheriff Kirby, Mr. G. Shipton, Mr. Plunkett, M.P., the Chancellor of the Exchequer, Sir Francis Knollys, Sir C. Mills, K.C.M.G., Sir H. E. Knight, Mr. J. Howard, M.P., Sir W. T. Charley, Q.C., Mr. J. Pender, M.P., Mr. S. Montagu, M.P., Mr. ex-Sheriff Burt, Mr. ex-Sheriff Clarke, Sir John Lubbock, M.P., Sir F. Abel, F.R.S., the Master of the Clothworkers' Company, Mr. Hyde Clarke, Mr. C. J. Leaf, Mr. Walter Leaf, Sir G. H. Chubb, Mr. Albert Spicer, the Master of the Leather-sellers' Company, Mr. C. J. Drummond, Mr. G. Shipton, the Mayor of Leicester, Mr.

J. Watney (the Mercers' Company), Mr. W. J. Thompson, jun., and the Right Hon. Sir John Rose, G.C.M.G.

The Lord Mayor in opening the proceedings said that letters and telegrams expressing sympathy with the object of the meeting had been received from the Duke of Richmond and Gordon, the Duke of Athole, the Duke of Westminster, the Marquis of Ripon, and the Marquis of Hartington (who wrote saying that at the last moment he was prevented from attending), from Lords Elgin, Stair, Carnarvon, Strafford, and Northbrook, and from Mr. Chamberlain, the Lord Advocate, Mr. Joseph Cowen, Mr. Burt, M.P., and many others.

The Lord Mayor then said: This is a meeting principally, I think, of citizens, but also of all who are interested in the Imperial Institute of the United Kingdom, the Colonies, and India, of which His Royal Highness the Prince of Wales is president. I have had very great pleasure as Lord Mayor in responding to the request to have this meeting in Egyptian Hall. You know the history of the institution which we are met to support—how the Prince a few months ago addressed a letter on the subject to my predecessor, Sir J. Staples, and afterwards appointed an organizing committee to carry into effect the views he entertained of the celebration of Her Majesty's jubilee, and I have asked those of you who entertain the same views to be here present to-day for the purpose of furthering the interests of this national memorial. I may say at the outset that this is not the only memorial of Her Majesty's jubilee contemplated or on foot, and I hope it will not be the only one. (Hear, hear.) I had the pleasure a short time ago of presiding in this hall over a meeting of archbishops, bishops, clergy and others of the Church of England in favor of the erection of a Church House. But while particular institutions and localities may have their particular jubilee memorial, there should be one for the whole Kingdom and the Empire (hear, hear) to show the feelings which, I believe, we all entertain for the benefits we have received during the 50 years of Her Majesty's happy reign. (Cheers.) I had the pleasure to-day of being present at the meeting at St. James' Palace, His Royal Highness the Prince of Wales in the chair, and many now here were present. You will understand how difficult it is for one of the members of the Royal Family to express the views of the reigning Sovereign; but reading between the lines of the Prince of Wales' speech, you can easily understand what the wish of the Sovereign may be when His Royal Highness says:—"From the close relation in which I stand to the Queen, there can be no impropriety in my stating that if her subjects desire, on the occasion of the celebration of her 50th year as Sovereign of this great Empire, to offer her a memorial of their love and loyalty, she would specially value one which would promote the industrial and commercial resources of her dominions in various parts of the world, and which would be expressive of that unity and co-operation which Her Majesty desires should prevail among all classes and races of her extended Empire." (Cheers.) I think we can gather from that pretty clearly what Her Majesty's views would be if she felt at liberty to express them, and therefore we will take it that in this particular form our gratitude to the Queen will be shown in the way which will most particularly fulfil Her Majesty's wishes. (Hear, hear.) No doubt there are objections to the details of this scheme, as there would be to the details of any scheme which might ever be propounded by human ingenuity. But I would just remind you, especially with regard to one objection which I have heard made, that if the memorial is to be a spontaneous expression of the love and affection of our people to our Queen, it must come from ourselves and from our own pockets (hear)—it must be our free-will offering, because a gift which is extorted would lose half its value (hear, hear), and therefore any scheme with regard to an application to Parliament for funds, either in aid or necessitating a sustentation to be largely supplied by Parliament, would fail in the canon which I have laid down that it should be a free-will offering of the people. (Hear, hear.) I should be sorry to recommend it, and Her Majesty the Queen would, I am sure, be loth to accept it. (Cheers.)

Earl Granville, who was cheered on rising to move the first resolution, said: My Lord Mayor, my Lords, Ladies, and Gentlemen, It is with very great pleasure that

I accept the honor imposed upon me of taking part in these proceedings. But I feel that I owe something of an excuse to you for doing so, and that excuse ought to be the stronger in consequence of an accident—I presume a delay in the train of an old personal friend of mine, and a political opponent, but for whose character, both in public and private, I have the highest possible respect—I mean Lord Iddesleigh, (Loud cheers.) I am therefore to begin the proceedings instead of one who would have done it so much better. The resolution which I have been called upon to propose to you is this:—“That this meeting, desiring to express its grateful recognition of the blessings which have been afforded to this country during Her Majesty’s reign, resolves that a memorial, worthy to record the completion of fifty years of that reign, should be erected by means of the voluntary contributions of the Queen’s subjects throughout her dominions.” Now I am quite aware of what the object of this meeting is. The object of it is not to give an opportunity to Londoners, to born cockneys like myself (a laugh), to make long speeches. The object of it is that we should have intercommunication with the representatives of every part of the United Kingdom on a subject which we think worthy of such consideration. So you may depend upon me that I shall be very brief on this occasion. The Lord Mayor spoke really in support of this first resolution with great force and great clearness, and I agree with all that he says. I believe that there can be no doubt in the mind of any one here present that it would be a mere work of supererogation to impress upon you a desire which is universally felt in the United Kingdom and in all Her Majesty’s great colonies and dependencies to celebrate in a worthy manner the accomplishment of the fifty glorious years which have constituted her reign. (Cheers.) Now in this country we refuse, and wisely refuse, to be bound by precedents, but we like to hear what the precedents are, to consider them, and in some measure to guide our course by them. Last year, in consequence of a question put to me by a noble friend of mine, Lord Braye, under the then Government, and also of some private inquiries which were addressed to me as a member of the Government with respect to the jubilee, I looked into the matter myself, I communicated with the Privy Seal Office and the Home Office, and consulted some historical works on the subjects. I found that the records of the jubilee of George III were very meagre, and I think I may add that this is accounted for by the fact that there was not very much to record in the matter. (A laugh.) At that time the King was very popular. There was, no doubt, affection and loyalty to the Sovereign, guns were fired, bells were rung, anthems were sung, processions were formed, sermons were preached, speeches were made, an enormous quantity of food and drink appears to have been consumed (a laugh), and they even seem to have had recourse to what would be out of the question now because the class happily does not exist—a certain number of that unfortunate class who were imprisoned for small debts were released from their confinement. But the general feeling does not appear to have approached in the slightest degree to the intense feeling which now exists on the subject. There was another remarkable circumstance—there seems to have been no proposal whatever, no thought of doing that which, while it reflected honor on the character of the Sovereign, at the same time would confer lasting benefit upon the nation and upon her great Empire. (Cheers.) Now, with respect to this proposal of doing honor to the Queen, I have one complaint to make of the committee who have been called upon by the Prince of Wales to report on this subject—much the same complaint which I, when very young, heard from Mr. Creevey of Lord Brougham, who was then Mr. Brougham. Mr. Creevey was at that time a great friend of Mr. Brougham and was contesting with him the representation of Liverpool—an event which may possibly arise again within a few days of this time. (A laugh.) Mr. Creevey made a great complaint of Mr. Brougham. He said that Mr. Brougham, in his speeches, always speaking first, so entirely exhausted all the political subjects that he was left without anything to say. Mr. Brougham promised to pay great attention to this complaint, and at the next meeting he spoke on every possible subject of interest at that time, and then, at the end of three hours he suddenly stopped, because, he said, he was called upon to stop, as he knew his friend Mr. Creevey was so full of matter which he was desirous of impart-

ing to that distinguished audience that he would not say a word which would postpone for one moment the opportunity of hearing him. (Laughter.) So Lord Herschell and his colleagues stated in so condensed a form the reasons for celebrating the jubilee of Her Majesty, and explained the particular mode in which that could best be done, that they have left me nothing to say. You have all read that report. It puts very clearly the reasons for the establishment of an Imperial Institute of the United Kingdom, the Colonies, and India, and the members of the Committee would correct me if I omitted to say that the pith of the report is this—that it is desirable to establish buildings worthily to commemorate the 50 years of Her Majesty's most prosperous reign, and, at the same time, that those buildings should be fit for the carrying out of the plan which they go on to describe. Now, the object of this institute appears to me, as defined by them, to be clearly to bind more closely together the interests of the mother country and the colonies and dependencies of the Sovereign. (Hear, hear.) I am speaking in this great commercial city in the presence of some of the most eminent representatives of commerce in all parts of the Kingdom. I believe the peculiarity of this plan is that it is not to be an isolated metropolitan institution, but that each of the provinces should have its own institution, though in the most friendly relation with the central body. (Hear, hear.) I appeal to you whether there is not a great deal of lamentable ignorance with regard to the unbounded resources of the great Empire now belonging to the Queen (hear, hear), and that it is most desirable that it should be brought home both to our colonies and ourselves as to the progress which is being made at home, and especially to us at home, whether we intend to emigrate or to send capital to those dependencies, or whether we mean to enter into commercial relations with them. It is most important that perfect information should be obtained on this point. (Hear, hear.) This institution will give means of inter-communication and will contribute very much not only to the diffusion of knowledge but to the promotion of that technical education which may be most usefully adopted. (Hear, hear.) I believe, and you will correct me if I am wrong, that there is a vast amount of capital in this country ready to flow into India and the colonies, and that in India and the colonies there is a great desire to receive that capital and make use of it, and it would be lamentable if ignorance should set an obstacle to the mutual interchange of such services. The Lord Mayor spoke to you of this plan being of a voluntary character, and I entirely agree with what he said. I think the essence of it is that the memorial should be a voluntary offering from all classes of Her Majesty's subjects to that Sovereign for whom they have such an affection and such devoted love. (Cheers.) With regard to applying to Parliament—I am not a member of the Government, and do not know whether they would wish to do it—perhaps the Chancellor of the Exchequer would hardly be disposed to give an opinion so soon (laughter and cheers), but I believe neither he nor I would be inclined to give a decided opinion that Parliament should make an annual vote for the purpose. (A laugh.) However, we do not wish that the occasion should arise. We wish that this should be a spontaneous and voluntary offering to Her Majesty. I have only one word more to say. I entirely agree with the concluding words of the report—that if this proposal is carried out it will be a suitable and striking memorial of the unity of the whole Empire, which has grown so much in the 50 years of Her Majesty's reign which we are now celebrating, and I believe that it will add most forcibly to the strength and elasticity of those silken cords which year by year, I might almost say day by day, so unite the whole Empire into one compact body. (Loud cheers.) The noble earl concluded by moving the resolution.

Mr. Plunket, M.P., in seconding the resolution, said: I feel it is a great honor as well as a great pleasure to be permitted in this great centre of the wealth and the glory of this country to take part for a very few moments only in the proceedings of to-day. I perhaps might not do so were it not for the fact, which we all deeply regret, that my noble friend Lord Iddesleigh has been prevented from coming here. Nothing, I am sure, would have prevented him but circumstances which he could not control. (Cheers.) I am sure that we should have been glad to have had this meet-

ing addressed by one who has for so long a period of the 50 years of the present reign, shared in the councils of our Sovereign with so much honor to himself and so much advantage to the country. (Loud cheers.) I am very glad indeed to take part in these proceedings and to stand among so many distinguished men who represent the different institutions and different interests of this country; and who, I must say, too, represent the various views on political questions, as I dare say some of us will have good reason to know in another place before many days are passed. (Laughter and cheers.) But to-day we are assembled for a common purpose. We are assembled here to lay the foundation and to take the means for erecting a memorial and a monument which shall not only be, as this resolution declares, a record of the prosperity and the happiness which we have enjoyed during the reign of the present Sovereign, but which also shall be a bond of union in the future for all the various races and interests which go to make up our great Empire. (Cheers.) It would be impertinence on my part to attempt, in the few minutes which I have at my disposal, any discussion of the great public and private virtues which we have seen in the person of our beloved Queen. Early in her reign they were summed up by the great English poet of the present day, when he wrote:—

“Her Court was pure; her life serene;
 “God gave her peace; her land reposed;
 “A thousand claims to reverence closed
 “In her as Mother, Wife and Queen.”

(Loud cheers.) Thirty-seven years have passed away since these words were written by Lord Tennyson, but every day of all those years has brought fresh proof of the truth of the lines, and those claims, those “thousand claims to reverence” have been allowed again and again, and are enshrined in the deepened devotion of her subjects. (Cheers.) These are feelings which we are proud to entertain within the limits of these islands. But in this jubilee year we cannot but know that these feelings are shared by millions of our kinsmen and of our fellow subjects who are not our kinsmen throughout the wide dominions of this Empire; and I say it was a great and noble thought that inspired His Royal Highness when he proposed to take advantage of this jubilee occasion to draw into one common centre all those feelings of devotion for the Queen, and weave them into a common bond of strength and unity for the Empire in the future. (Cheers.) This resolution proposes that a memorial should be erected by means of voluntary contributions of the Queen’s subjects throughout all her dominions. I feel confident that our fellow subjects beyond the seas will not be slow in responding to this appeal. They have given over and over again proofs that though they have changed the skies under which they have lived, they have not changed their hearts and minds as Englishmen. (Cheers.) In their new homes beyond the ocean they call their children and places by English names; they have ever turned back their minds to the old country, and have endeavored to frame for themselves in the new land institutions as like to those which they left behind them here as the circumstances in which they live would admit of; and not long ago they proved their willingness to share the dangers and risks of war with the mother country. (Cheers.) This trophy which we are about to erect is not one so much to commemorate the glories of war in this country in which they were so willing to share, as to commemorate the peaceful triumphs of commerce and civilization (hear, hear); and I am sure our fellow-countrymen abroad will readily join with us to make closer the bond, and seal the record with such a symbol as is now proposed, thus showing their willingness to tread along with us the paths of peace and prosperity as one nation. (Cheers.) But, after all, this institution has been started in the old country, and it is in the old country that it ought to be mainly supported, even if there were ample resources coming from abroad; and I am glad to be able to take a humble part in the proceedings of to-day, and to appeal to the citizens of London that at the very outset of this undertaking they should give earnest and practical proof of their enthusiasm for the cause which this memorial is in future to represent. The wisdom and energy with which the Prince of Wales and the committee appointed by His Royal Highness have conducted

this business up to the present point afford to all of you guarantees that the institution will be well and ably managed in its future course, and therefore I will conclude by calling upon all those who are here to-day to make, by the practical proof of handsome contributions to this fund, a good beginning of the great work which we have taken in hand. (Cheers.)

Mr. J. L. Mahon said he wished to move an amendment to the resolution. (Cries of "No," and interruption.) It was that "In view of the grave dangers threatening society from the discontent of the working classes, it is unwise to spend wealth in the empty formality of celebrating the jubilee" (cries of "Order") "or consolidating an Empire built up in the interests of the upper class alone." He added that he presumed he would, as a citizen of London, be permitted to move this amendment. (Cries of "No" and "Chair.")

The Lord Mayor.—So far as I have heard, your amendment is utterly out of place. (Cheers.)

Mr. Mahon.—I wish to say a few words in order to show why it is in order. ("No, no.") Certainly; this is a free meeting of British citizens, and every speaker ought to be listened to who wishes to address himself civilly to the meeting. The amendment is distinctly relevant to the subject. ("No," and interruption.)

The Lord Mayor.—You will have the opportunity of voting against the resolution. Practically what you propose is to negative the resolution.

Mr. Mahon.—I wish to say one or two words only. (Cries of "No" and "Chair," and interruption.)

The Lord Mayor.—Exactly; but this room is not a discussion forum (Laughter). This resolution will be put to the meeting, and you can vote against it.

Mr. Mahon.—I wish, Sir, to speak to a point of order. (Interruption, and cries of "Chair.") A resolution is being put to this meeting as a meeting of British citizens, and all the speakers have spoken in the name of the subjects of Her Majesty. Surely it is only fair (cries of "Order" and "Chair," and much interruption) to allow slightly adverse views to be heard from one who is as much a citizen of the British Empire as any person in this room. (Interruption and cries of "Vote" and "Chair.")

The Lord Mayor.—This meeting is summoned in the interests of a national jubilee memorial, and I presume the gentlemen who are present have come in accordance with that invitation, but if the meeting is desirous of hearing you for a limited time I have no objection. (Loud cries of "No, no," and interruption.)

Mr. Mahon.—I appeal to the meeting for five minutes of fair play. ("No, no.")

The Lord Mayor.—I will ask the meeting to hear this gentleman for five minutes. ("No, no.")

Mr. Mahon.—This is not a free and open meeting; it is a packed meeting of stockjobbers. (Interruption, "Order," and "Turn him out.")

The Lord Mayor.—You must keep in order, Sir, and not disturb the meeting. It will not hear you, and therefore I will put the resolution, and you can vote against it.

The resolution was then put, two hands being held up, amid general laughter, against its adoption. The chairman, therefore, declared it carried.

The Lord Mayor.—I have just received a telegram from the Foreign Office which I will read. It states that Lord Iddesleigh is "prevented from attending the meeting through sudden indisposition." I am sure you all regret with me his lordship's absence and the cause. (Cheers.)

The Chancellor of the Exchequer, on rising to move the second resolution, was received with loud cheers. He said:—My Lord Mayor, my Lords, and Gentlemen,—All of us must deeply regret the absence of Lord Iddesleigh on this occasion, having heard the cause of his detention; but besides that, we have every reason to deplore that you have not heard his advocacy of the cause which we are here to-day to promote. Personally, I must say I regret that his absence has put me into a position where otherwise I would not have been, having to propose this important resolution. It is a most important resolution; if I may say so, it is the business resolution of to-day, and it is to this effect:—"That this meeting is of opinion that an Imperial

Institute, constituted in accordance with the plan framed under the directions of His Royal Highness the Prince of Wales, will form the best means of carrying out the preceding resolution." Now, there has been a much greater accord and unanimity hitherto on the subject that the Queen's jubilee ought to be celebrated in the most worthy manner than in the earlier stages of those proceedings with regard to the best method of carrying out her wish to celebrate that jubilee. As was very natural a very large number of persons thought that this jubilee was a most excellent opportunity to combine for the promotion of some cause which they have had specially at heart with the celebration of the jubilee itself, and so various plans have been proposed, and there are many localities which seem to wish to have local celebrations of the event. I am sure that no one would wish to discourage local celebrations, and I believe everyone will wish that no support given to local celebrations should diminish the possibility of giving one great national, Imperial mark of the way in which the Empire at large wishes to celebrate this jubilee. (Cheers.) And what is the main idea which has influenced His Royal Highness the Prince of Wales in proposing this plan? It is this, to have a plan in which not only Great Britain and Ireland shall take a part, but in which all parts of the Empire should bear a share; and it is certain that, enthusiastically as the celebration of the jubilee has been taken up at home, the colonies would maintain their enthusiasm. Their loyal desire to do honor to the Queen on this occasion is equal to that of any part of the Empire; and therefore one of the first conditions of the problem was this—What methods were there to combine all parts of the Empire in one great national effort? And then there came the idea that this should be done by a great Imperial Institute in which India and the colonies as well as the United Kingdom and Ireland should take part. I have seen no other plan that combines that which we consider to be an essential condition of a truly national celebration. (Hear, hear.) It has been proved, I trust, by the report of the Committee appointed to deal with the matter that while we have been anxious to give effect to a natural and a powerful sentiment, at the same time we have been anxious to do it in a practical and useful form. Personally I should not have been sorry to have heard the speech of five minutes which was proposed to be made to us by a gentleman in this room, because I saw the point he had in his mind was this—that in time of great national distress there should be no great expenditure of wealth upon this institute. But those who have studied this proposal, those who have gone into this plan, believe that while they are going to do honor to the Queen at the same time they are going to promote an institution which will be most valuable to the industrial, commercial, and social interests of this country as well. (Cheers.) All those who have been engaged in this scheme know that the Prince of Wales is one of the first in this country who looks to the interests of the working classes. (Cheers.) If he had sought out the best means by which he could promote some celebration of this joyful jubilee which should, at the same time, promote the interests of the masses of this country, he would have fixed upon an institute where you are going to bring together the colonies and the subjects of the Queen who live in Great Britain and Ireland, so that we at home may see what the colonies want, and the colonies may know what they can get from the mother country, not only in material assistance, not only by the export of produce, but by seeing that the desire for emigration which exists in many parts may be wisely and happily directed, and that that great outlet for our national activity may not be destroyed or weakened by any imperfect organization. (Cheers.) I trust for the purposes of this institute there will not only be great and powerful subscribers in the city of London, but I trust that the working classes may take up the question and with their pence and shillings may bear their share also in this great national demonstration, as we may hope it may be. (Cheers.) There is some sentiment, no doubt, which has guided those who have promoted this plan, and we ought not to be ashamed that in an occasion such as this sentiment should play some part. Sentiment has often provoked cruel wars, but let sentiment also take its part in the development of the great works of peace. We are not ashamed of the sentimental ties, as sometimes they

are called, which bind the colonies to the mother country. It happens in the history of families that there comes a moment when the relations between the father and the sons, which were first personal, are afterwards exchanged for what we may call a frank friendship on almost equal terms. We have arrived at that period during the last fifty years. If the Queen looks back to the beginning of Her reign and thinks what the colonies were then, and contemplates now those vast possessions flourishing as they are and loyal as they are, which have so largely added to the power and the magnificence of Her Empire, how must she see what a difference of tone and sentiment animates it now to what was the case many years ago. (Cheers.) There was a period, perhaps, when there was some cooling of the sentiment between the colonies and the mother country; but that time has passed, and year after year during the past ten years has seen the feeling of the colonies grow stronger, that they will rest on the mother country, and the feeling of the mother country that she will stand by the colonies. (Cheers.) Therefore to-day the Prince of Wales and the promoters of this plan feel they can go forward with a plan such as this, knowing that they can appeal to the growing sentiment in all parts of the Empire, and at the same time knowing that they are inaugurating a scheme which will assist the commercial and the industrial development of the country. (Cheers.) I have been told that some Chambers of Commerce fear that through this central institute their local museums might not receive the necessary support; but I venture most humbly to suggest that it is by having a strong central institute which intends to promote the formation of local museums through this central institute they may best arrive at that which they desire and which all must desire—namely, a far greater distribution over the whole country of collections which will guide the manufacturing and the working classes in their labors and trades. (Cheers.) A description of the objects of the institute has been given in the report of the committee, and it only remains for me to ask, not only you here to-day, but all Her Majesty's subjects, to support this as a national institution, and to support it by voluntary contributions. Lord Granville was correct in saying that the great grace of this gift to Her Majesty, if one might call it so, would spring from the voluntary contributions. It might be that at a particular moment Parliament would vote certain sums, but we know afterwards you have haggling over the Estimates and painful discussions even on matters of great national interest, which would be, I am sure, very derogatory to the scheme, which would hurt its acceptance over the Empire at large, if it were to be made the subject of Parliamentary debate instead of spontaneous action of Her Majesty's subjects. (Cheers.) To that spontaneous action I call you, and I trust that this institute may be made worthy of the jubilee which we desire to celebrate and worthy of the objects which it is intended to promote. (Cheers.)

Mr. Mundella, M.P., in seconding the resolution, referring to the proposed amendment, said he was sure that there was not a man inside that hall or out of it who did not sympathize with the distress among the industrial classes, and if the money about to be expended on the institution which they wished to erect was an expenditure of a foolish and wasteful character, he believed that the citizens of London would be the first to deprecate it. But he could conceive of nothing that would be more in the interests of the working classes of this country, than that the great captains of industry and the army who served under them should have a closer connection and touch with the colonies than they now had. (Cheers.) Much of the existing distress arose from the fact that our working people did not know how great was their inheritance and how vast the field for their energies in the Empire over which our Sovereign reigned. (Hear, hear.) That vast country under the rule of Her Majesty, beyond the sea, only awaited industry and capital for the employment of our great and increasing population at home. He should advocate in the House of Commons a large and increasing expenditure upon technical institutions, in order that the artisans of this country might be as well qualified for their pursuits as their own class in any other country of the world. (Cheers.) With the institution which they now desired to call into existence would be affiliated the industrial institutions of the

country. It would make the people acquainted with what the colonies desired, and would show to our artisans how they must fit themselves in order to achieve success there. He thought that by means of this institution more might be done to promote the success of our working population, than by any other that could be called into existence to commemorate the glorious reign of our Queen. He trusted that the proposal would be so supported that it would be a fitting monument, not only to the virtues of our Sovereign, but also to the loyalty of her people and the magnitude of her Empire. (Cheers)

Dr. Forbes Watson, who rose in the body of the hall amid cries of "Order," said he desired that that opportunity should be taken, in order to decide what should be done with regard to a site for the institution. He asked permission to address the meeting upon the subject. (Cries of "No.")

The Lord Mayor said he understood that Dr. Watson desired to communicate to the meeting the scheme which he had produced for the regulation of the Imperial Institute.

Dr. Watson said that the opportunity of explaining the matter had been denied him by the committee, and in his opinion it should be fairly and fully discussed at that meeting.

The Lord Mayor understood Dr. Watson to refer to a document, of fifteen pages, which he had forwarded to many people, the views contained in which he was not able to explain fully in an hour's interview with the committee. If Dr. Watson had any amendment to move he would hear it, but if not that gentleman would have an opportunity of voting against the resolution. (Hear, hear.)

Mr. Mahon said he wished to move the amendment. (Cries of "No," and hisses) His amendment was, "That the proposed Imperial Institute (cries of "Chair" and "Order") being an organization for promoting the interests of the moneyed classes, at the expense of the working classes (cries of "Oh," and hisses) is therefore unworthy of support." He asked permission to speak for five minutes on this amendment. (Cries of "No.")

The Lord Mayor.—I will not allow the time of 500 or 600 people to be wasted here in this manner. (Cheers.) You can vote against the resolution if you like. This is your former amendment in other words, and I shall not take it. (Cheers.)

Mr. Mahon.—You can put it to the meeting. ("Order.")

The Lord Mayor.—I am chairman, and I shall not put it. (Cheers.)

The resolution was then put and carried, with one dissentient, amid cheers.

Lord Rothschild said,—My Lord Mayor, My Lords and Gentlemen,—The resolution which I have been asked to propose is so simple and so concise, and expresses so fully the feelings and sentiments of this great meeting, that perhaps I should do best if I simply moved it. It is "That this meeting pledges itself to take all practicable steps to assist in the formation of the Imperial Institute, and to support it when brought into existence." That resolution clearly demonstrates that this great meeting, which you have called together to-day, is not summoned by you to devise the modes and methods by which the citizens of London are to celebrate Her Majesty's jubilee, because we all know full well that when the day comes to celebrate that auspicious event the Lord Mayor and the Sheriffs of London, true to the traditions of the historic corporation, will know full well how to celebrate that day, and that the hospitality of the city will be extended far and wide, to rich and poor alike, and that if Cornhill and Fleet Street do not run, as of yore, with sack and other drinks, and if Smithfield be not illuminated with bonfires, it will be because you will offer to the citizens and liverymen of London other and more modern enjoyments. (Cheers.) The purpose of our meeting here to-day is to enable a loyal and a grateful people to found and endow a permanent institution which, in all generations, shall be commemorative of fifty years of a glorious reign. (Cheers.) If we cast our thoughts backwards, we cannot help being struck by the fact that in the long annals of our history we boast of the glories of two of Her Majesty's predecessors—of the glories of the two Queens, Elizabeth and Anne. Our successors, as well as ourselves, will gratefully acknowledge that the glories of the reign of Queen Victoria are as

great and greater. (Cheers.) When Her Majesty ascended the throne, her subjects then enjoyed a not inconsiderable amount of liberty and freedom. Those liberties have been increased, and with those increasing liberties the love for the throne has been augmented. (Cheers.) Fifty years ago the British Empire was vast; to-day its magnitude has increased and its component parts have become consolidated. The Dominion of Canada was then a bare agglomeration of scattered colonies—the home of the trapper and the favorite haunt of sportsmen and adventurers. To-day it is a peaceful and united Dominion, traversed from one end to the other by railways, and one of the richest agricultural countries in the world. (Cheers.) Australia was hardly known. It was then an agglomeration of convict settlements; it is now a huge empire of English-speaking men and women. (Cheers.) These conquests—these extensions of territory—were not made in war and by the sword, but by the free will of men and women who left their country determined to establish a new England beyond the seas—a new England which should always be attached to the mother country, which should add to her greatness and the glory of her Sovereign. (Cheers.) During the same period Her Majesty's Indian Empire has been extended and consolidated, and there are none of Her Majesty's subjects more loyal and contented than the foreign races who are under her direct sway in the far East. During these 50 years the genius of a great and free nation has enabled her citizens to make wonderful strides in all the arts and manufactures which the requirements of modern civilization have necessitated. What, therefore, can be more natural, my Lord Mayor, than that a grateful people should wish to hand down to posterity an institution commemorative of the progress of the nation during these 50 years, and what can be more commemorative than an institution which will shelter at all times not only the products of the mother country, but also of our colonies, of our dependencies, and of our great Indian Empire—an institution where information of every kind can be obtained, an institution which will be the symbol of the links which unite Greater Britain to England, an institution which, I hope, we shall make worthy of the Sovereign in whose honor it is founded. I have great pleasure in moving this resolution. (Cheers.)

Professor Huxley, in seconding the resolution, said he wished to view the matter from the point of view of a man of science. The epoch of Her Majesty's reign was remarkable above all corresponding periods of human history that he knew anything about for two peculiarities. One was the enormous development of industry, and the other was the no less remarkable and prodigious development of physical science, which two developments, indeed, had gone hand in hand. The opinion which he was now expressing was not one formed *ad hoc* for the purpose of this meeting. It was one which he expressed two or three years ago when taking leave of the Royal Society. It was a matter which was perfectly obvious to any person who had paid attention either to the history of science or to the history of industry, that there had been nothing, not only in any period of 50 years, but in any century, in the slightest degree comparable with the magnitude and the importance of the growth of those two branches of human activity which had taken place since 1837. (Cheers.) His memory went back far enough to call to mind with great vividness, a period when industry, or, at least, the chiefs and the leaders of industry, looked very much askance at science. The practical man then prided himself on caring nothing for it, and made it a point to disbelieve that any advantage to industry could be gained by the growth of what he was pleased to call abstract and theoretic knowledge. But within the last 30 years more particularly that state of things had entirely changed. There began in the first place a slight flirtation between science and industry, and that flirtation had grown into an intimacy, he might almost say courtship, until those who watched the signs of the times saw that it was high time that the young people married and set up an establishment for themselves. (Laughter and cheers.) This great scheme from his point of view was the public and ceremonial marriage of science and industry. (Hear, hear.) It was the recognition on the part of those persons who were best able to judge of what were the wants of the industry of the time, that if they were to be developed in a way proportionate to their impor-

tance they must be developed by scientific methods and by the help of a thoroughly scientific organization. A great distinction was commonly drawn by some philosophic friends of his between what they called militarism and what they called industrialism, very much to the advantage of the latter. He by no means disputed that position; but he would ask anyone who was cognizant with the facts of the case, who had paid attention to what was meant by modern industry pursued by the methods now followed, whether, after all, it was not war under the forms of peace? It was perfectly true that the industrial warfare was followed by results far more refined in their character than those which followed in the track of military warfare. It did not break heads and shed blood, but it starved. The man who succeeded in the war of competition, and the nation which succeeded in the war of competition, beat the other by his starvation. It was a hard thing to say, but the plain, simple fact of the case was that industrial competition among the peoples of the world at the present time was warfare which must be carried on by the means of warfare. In what respect did modern warfare differ from ancient warfare? It differed because it had allied itself with science, because it would have organization and discipline as its foundation and not mere mass of number, because it took advantage of every scientific discovery by which the weapons of offence and defence could be perfected, and because it required the highest possible information on the part of those who were engaged in that warfare; and if the peaceful warfare of industrialism was to succeed it must follow the same methods. Their methods must be organized; they must call to their aid, as industry was doing, every possible help which was to be gathered from science. They all knew what help science was giving to them; not only so, but those who conducted their operations should be trained and disciplined in those different branches of human knowledge which appealed to the needs and wants of nations and to the distribution of commodities. This country had dropped astern in the race for want of education which was obtained elsewhere in the highest branches of industry and commerce. It had dropped astern in the race for want of instruction in technical education which was given elsewhere to the artisan, and if they desired to have any chance to keep up that industrial predominance which was the foundation of the Empire, and which, if it failed, would cause the whole fabric of the State to crumble—if they desired to see want and pauperism less common than unhappily they were at present, they must remember that it was only possible by the organization of industry in the manner in which they understood organization in science, by straining every nerve to train the intelligence that had served industry to its highest point, and to keep the industrial products of England at the head of the markets of the world. (Cheers.) He looked, therefore, on the Institute as the first formal recognition of this great fact—that our people were becoming alive to the necessity of organization and discipline of knowledge. It was on that ground that he supported the proposition. If the first of these propositions was granted, if it was a worthy and fitting memorial of Her Majesty's reign, if they created an institution which permanently represented that which was the great and characteristic feature of the period, that which would mark the Victorian epoch in history as the epochs of Augustus and Pericles had been marked—if they desired to do that, then an institute having such objects and purposes as had been described appeared to be a monument not only more lasting than brass, but one for centuries to come which would bring before the people an image of the objects after which they had to strive, as a means of organizing their activities to such result as would lead to their perennial welfare. (Cheers.)

Sir J. Lubbock, in supporting the resolution, said: My Lord Mayor and Gentlemen,—In this city we are always ready to obey the summons of the Lord Mayor, who has just called upon me, but I think after the speeches we have just heard to say any more with respect to this resolution would be a work of supererogation. Lord Granville, in his interesting opening remarks, alluded to an unfortunate candidate who had to follow Lord Brougham. If I were to speak in support of this resolution I should have to follow half a dozen Broughams. In this city we have great confidence in the judgment and sagacity of the Chancellor of the Exchequer, of Lord

Rothschild, and of Lord Granville, and in the scientific knowledge of my friend, Professor Huxley, who has just sat down, and in following their lead we are not likely to go far wrong. Other monarchs who have reigned long have left monuments of stone or, what is worse, mountains of debt, but if I were to criticize what we have heard to-day I would say that this memorial is not so much a memorial of Her Majesty's reign as of our gratitude and affection. (Cheers.) The true memorial of Her Majesty's reign is engraven in the hearts and affections of Her Majesty's subjects, and in none more deeply than in the hearts and affections of the loyal citizens of her metropolis. (Cheers.)

Dr. Forbes Watson asked whether the resolution pledged the meeting to the selection of the South Kensington site? If it did, there were many present who doubted whether the selection of that site would conduce to the commercial advantage of this country or to the instruction of the working classes, as alleged by the Chancellor of the Exchequer and Mr. Mundella.

The Lord Mayor said that the question would more appropriately have applied to resolution No. 2.

Mr. Mahon moved as an amendment that the resolution be referred to a mass gathering to be held in Hyde Park, to be organized by the Prince of Wales and his committee. (Laughter.)

The Lord Mayor said he would not allow the time of the meeting to be wasted in that manner, and he refused to put the amendment.

The resolution was then carried with one dissident.

The Marquis of Lorne rose to move "That the thanks of this meeting be conveyed to His Royal Highness the Prince of Wales for having suggested a national memorial worthy to celebrate the fiftieth anniversary of Her Majesty's reign." He said: I certainly shall not repeat the observations which have been made as to the good which will be effected all round, not to one class but to all the subjects of Her Majesty, by such an institution as we are met to-day to establish. You have already heard of the good which it will do to the Empire, and more especially to those at home. Having been lately in touch with one of our colonies, I shall say one word, and only one word, to show that this proposal will find very general and very wide acceptance among our colonial fellow subjects, because it will be to the great good of those countries to have an opportunity of showing what they are made of and what they produce in this great highway of the world's commerce and wealth. (Hear, hear.) They will have that which they so much value in their own home—they will have space and liberty. They will have space to show what they are capable of and what they are producing, and, within the space allotted to them, subject to certain general rules, they will have the liberty of doing what they choose. That is exactly what they want, and what will do good all round. (Hear, hear.) My friends in Canada will be surprised to hear what one gentleman suggested to-day—that this institution will be for the benefit of the moneyed classes. I think one special instance may show what good an international exhibition of manufactures and products does. I know one of our exporters this year who got an order from a British merchant for no less than £7,000 worth of raw Canadian woods to be manufactured in England. (Hear, hear.) That instance speaks for itself, and considering how much of that kind of thing we are likely to have in the future, we may safely say that such an institution will do good to the old country and to all its sisters around it. I beg to move the resolution. (Cheers.)

Sir C. Tupper had great pleasure in seconding the resolution. As a colonist he wished to say that the heartfelt gratitude of all colonists in all parts of the world was especially extended to His Royal Highness the Prince of Wales. There was no person interested in the colonies who did not know that the great success which had attended the late Colonial and Indian Exhibition was due in a very important measure to the devotion of His Royal Highness as the executive head of the undertaking, and it was an additional claim upon the gratitude of the colonists that His Royal Highness had now carried out the design long since contemplated of founding a permanent colonial institution in the heart of the British Empire. (Cheers.) During the last 50 years

the United Kingdom and the colonies had made a very great and grand advance in everything that constituted progress and prosperity, and there was no proposal which could be made that would commend itself more heartily to the people of this country or to their fellow citizens in the outlying portions of the Empire than the proposal to perpetuate the gratitude of the nation for the inestimable blessings which they had enjoyed during the past 50 years of Her Majesty's gracious reign. (Cheers.)

Mr. Mahon.—I wish to put a point of order. (Loud cries of "Turn him out.") As a member of this meeting I protest against the grossly rude manner of these gentlemen here. (Hisses and cries of "Chair.")

The Lord Mayor.—You have brought forward three amendments which were not amendments, and you have risen to points of order which are no points of order at all.

Lord Herschell was about to propose the next resolution, when Mr. Mahon rose and insisted upon moving another amendment, refusing, after repeated appeals from the chair, to give way. As the meeting showed a strong disinclination to hear the views of this speaker, and as he loudly protested his right to speak, the Lord Mayor called upon a police-constable standing near to eject him for disturbing the meeting. This was promptly done, amid many signs of satisfaction.

The resolution was then carried.

Lord Herschell moved a vote of thanks to the Lord Mayor for presiding. He said perhaps he might be allowed, as chairman of the committee which His Royal Highness had appointed, to say that the institution which they were going to found was not to be anything like an empty formality. He should not care to take the slightest trouble about it if he believed it was organized solely for the benefit of the wealthy. (Cheers.) If it was to make the wealthy wealthier or to improve the condition of the well-to-do, he should consider that he could put his time to much better use. His interest in it arose from the belief that it would benefit those classes who now in this country had little or nothing to do. With regard to the site of the institution, although it was to be in the metropolis—it must be somewhere—yet it was no part of the design of those whom the Prince of Wales had called into consultation that it should be a merely metropolitan institution. Its purpose and its object were intended to be as wide as the dominions of the Queen, and one of the matters which must engage the most earnest deliberation of the committee before the matter passed from their hands into the hands of those who must govern the institution would be how best to carry out its objects, so as to bring it into close contact and co-operation with all the centres of industry in the United Kingdom. They would be only too happy to receive the suggestions of any bodies in those centres of commerce who would aid them in working out the scheme in that direction. (Cheers.)

Mr. Shipton seconded the resolution. He had been invited to appear at the meeting on account of his connexion with the industrial population, and he believed that the institute would be a benefit to labor. (Hear, hear.)

The Lord Mayor, having acknowledged the vote of thanks, announced the following subscriptions:—The Governor and Company of the Bank of England, £1,000; N. M. Rothschild and Sons, £1,000; Lord Rothschild, £500; Sir J. M'Garel Hogg, £1,000; Sir W. J. Clark, £1,000; J. S. Morgan and Co., £1,000; Marshall and Snelgrove, £1,000; Clothmakers' Company, £2,500; Baring, Brothers and Co., £1,000; Lord Revelstoke, £500.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 31st January, 1887.

SIR,—I have the honor to acknowledge the receipt of your despatch No. 29, of the 13th inst., and of its enclosures in continuance of the correspondence on the subject of the Imperial Institute.

I have, &c.,

G. POWELL, *Under Secretary of State.*

To the Honorable the High Commissioner for Canada, London, England.

OTTAWA, 7th June, 1887.

DEAR MR. MCGEE,—Sir Charles Tupper desires me to send you to be attached to previous papers on file in your office on the same subject, two copies of an address delivered at the Royal Institution of Great Britain before H. R. H. the Prince of Wales, K.G., on the 22nd April last, by Sir Frederick Abel, on the work of the Imperial Institute.

I remain, &c.,
C. C. CHIPMAN.

JOHN J. MCGEE, Esq., Clerk of Privy Council, Ottawa.

THE WORK OF THE IMPERIAL INSTITUTE.

ADDRESS DELIVERED AT THE ROYAL INSTITUTION OF GREAT BRITAIN, BEFORE HIS ROYAL HIGHNESS THE PRINCE OF WALES, K.G., F.R.S., VICE-PATRON, 22ND APRIL, 1887, BY SIR FREDERICK ABEL, C.B., D.C.L., F.R.S., ETC.

The Colonial and Indian Exhibition, which owes not only its conception, but also its brilliantly successful realization to your Royal Highness, will be pre eminently remarkable in time to come, for having achieved many results of vital importance and highest benefit to Her Majesty's subjects in all parts of her vast realms.

The collection of all that is commercially valuable and scientifically interesting of the natural products of the great Indian Empire and of the Colonies in one exhibition, embracing, as it also did, very comprehensive illustrations of the development of commerce, of the arts and of certain industries, in the many countries beyond the seas, which combine with the United Kingdom to constitute an Empire over nine million square miles in extent, afforded those at home an opportunity, surpassing all previous conception, of studying and comparing the natural history and resources of those distant lands, of which, attached though we might be individually to one or more of them by ties of friendship or of interest, the knowledge of many of us was of a very vague or partial character.

To the Colonists who visited us last year, the exhibition has been of inestimable value, in affording them a most favorable and appropriate opportunity of becoming acquainted or renewing their old friendship with the mother country, and of examining the progress there made in industrial, educational and commercial development; in leading to the cultivation of intimacy between Colonists from different sections of the Queen's dominions; and in affording them invaluable opportunities of comparing the resources and state of development of their respective countries with those of other parts of Europe. No more convincing illustrations than were provided by this great Exhibition could have been conceived of the importance, to the home country, to each colony, and to India, of fostering intimate relationship and unity of action. No more encouraging proof could have been afforded of the desire of all classes of Her Majesty's subjects at home to cultivate a knowledge of those far-off countries which the enterprise and perseverance of the British, and men of British offspring, have converted into prosperous and important dominions, chiefly during the period of the Queen's reign, than was furnished by the interest which the thousands upon thousands, who came from all parts, displayed in the study of the instructive collections in the galleries at South Kensington.

It was the success of the Exhibition which led to the definite formulation of the suggestion first made by Your Royal Highness in a letter addressed by you in the autumn of 1884 to the Agents-General of the Colonial Governments, that a permanent representation of the resources of the Colonies and India, and of their continually progressing development, might, with great benefit to the Empire at large, be established in this country. That the realization of this idea upon a sufficiently comprehensive basis might constitute a worthy memorial of the accomplishment of fifty years of a wise and prosperous reign; a memorial not personal in its character, excepting so far as it constituted an emblem of the love and loyalty of Her Majesty's subjects, but tending, as she would most desire, to serve the interests of the entire

Empire, had only to be pointed out by Your Royal Highness to be heartily concurred in by the official representatives of the Colonies and India, who were so intimately identified with the triumphs of the recent Exhibition.

The committee to whom you, Sir, entrusted the elaboration of a scheme for carrying this conception into effect, became persuaded by a careful consideration of the subject that such an institution as Your Royal Highness desired to see spring into life, to be a memorial really worthy of the jubilee of Her Majesty's reign, and to fulfil the great purpose which you had in view, must not be confined in its objects to particular portions of the Queen's dominions, but must be made thoroughly representative of the interests and of the unity of the whole Empire.

The outline of the scheme for the establishment of an Imperial Institute for the United Kingdom, the Colonies, and India, which met with the cordial approval of Your Royal Highness, was necessarily concise in dealing with the very wide extent of ground which the operations of the Institute are intended to cover; but those who have carefully considered it and rightly interpreted its proposals, have not failed to realize that it aims at very much more than the creation and maintenance of collections, illustrative of the natural resources of our Colonies and of India, and of the development and present condition of the chief industries of different parts of the Empire.

One of the primary objects of the Institute will certainly be the establishment of thoroughly well selected, carefully arranged, and efficiently maintained representations of the natural products which constitute the treasures, and are emblematic of the important positions in the Empire, of those great Colonial possessions which, during the fifty years of Her Majesty's reign, have, in many instances, experienced a marvellous development in extent, in commercial, social, and even in political importance.* The recent Exhibition not only afforded conclusive demonstration of the great interest and value to the United Kingdom which must attach to such collections if properly organized; by such illustrations as the magnificent collections of valuable woods, from nearly every Colony, many quite unknown in England, and the great variety of valuable economic products from India, of the existence of which we at home had little idea, it also served to convince us that our knowledge of the great countries which constitute the chief portion of the Empire is very limited and imperfect, and that their resources are, in many directions, still in the infancy of development. Our Colonial brethren cannot, on their part, fail to be greatly benefited by being thoroughly represented in a well selected and carefully organized assemblage of illustrations of the sources of prosperity which constitute the sinews of their commerce, and upon a continued exploration and cultivation of which must depend the maintenance of their influence upon industrial and social progress. Neither can they fail to reap substantial advantages by pursuing a friendly rivalry with each other in demonstrating the advances made from time to time in the development of the resources of the respective portions of the Empire in which their lot is cast.

The hearty co-operation and important material support to which the great Colonies, through their representatives in London, pledged themselves when the scheme for the proposed Imperial Institute was in the first instance limited to this branch of the great work which it is now contemplated to accomplish, afforded conclusive evidence of their earnest desire to be in all respects thoroughly represented in the Mother Country, and to take their places permanently in our midst as fellow-laborers in the advancement of the prosperity of the Empire. In furtherance of this important end, a notable feature of that building which, in its character, will, it is hoped, be worthy of the momentous epoch it is destined to commemorate, will be, the attractions and conveniences presented by it as a place of resort and a *rendezvous* for Colonists visiting England, and, it is also anticipated, for the important societies which represent the Colonies and Asiatic possessions in this country, and the facilities which it will afford for reference to literature concerning the Colonies and India, for conferences on matters of common interest and value to the Colonists and those at

* Statistical statements illustrating the development of the Colonies during the Queen's reign are appended.

home for the interchange of information between the British manufacturer and those in the Colonies who are directly interested in meeting his requirements, and generally, for the cultivation of intimate relations and good fellowship between ourselves and our brethren from all parts of the Empire.

The Institute will, however, not only operate actively under its own roof in promoting the cultivation of a better knowledge of the geography, natural history and resources of our Colonies, and for the advancement of the interests of the Colonists in this country; it is also contemplated that representative collections of the natural products of the Colonies and India, carefully identified with the more elaborate collections of the head establishments, shall be distributed to provincial centres, and that the Provinces shall be kept thoroughly conversant with the current information from the Colonies and India, bearing upon the interests of the commercial man, the manufacturer and the intending emigrant.

Although the formation and maintenance up to date of collections illustrative of the development and present condition of the important industries of the Empire also forms, as I have stated, a part of the programme of the Institute, the scope of its activity in relation to industry will be of a much more comprehensive character; indeed, it is to be hoped that the work which it will achieve in furtherance of the development and progress of industries and their future maintenance in the United Kingdom at least upon a footing of equality with their conditions in the great Continental States, will be most prominent in securing to the Imperial Institute the exalted position which it should occupy as the National Jubilee Memorial of Her Majesty's reign.

There is no need for me to recall to the minds of an audience in the Royal Institution the great strides which have been made during the last fifty years in the applications of science to the purposes of daily life, to the advancement of commerce and to the development of the arts and manufactures. Nor is it necessary to dwell upon the fact that this country is the birthplace of the majority of the great scientific and practical achievements which have revolutionized means of intercommunication, and have in other ways transformed the conditions under which manufactures, arts and commerce are pursued. These very achievements, of which we as a nation are so justly proud, have led, however, by many of their results, to our becoming reduced to an equality of position with other prominent nations in regard to important advantages we so long derived from the possession in this country of great material resources, easy of access and application, and from the consequent pre-eminence in certain branches of trade and industry which we so long enjoyed.

In 1852, Sir Lyon Playfair, in one of a course of most interesting lectures on some of the results of the preceding year's great Exhibition, was impelled by the teaching of that great world's display, to point out that "the raw material, formerly our capital advantage, was gradually being equalized in price and made available to all by the improvements in locomotion," and "that industry must in future be supported, not by a competition of local advantages, but by a competition of intellect." If this was already felt to be the state of the case six-and-thirty years ago, how much more must we be convinced of the full truth of this at the present day, by the conditions under which the British merchant and manufacturer have to compete with their rivals on the Continent and in the United States.

It is still within the recollection of many that almost the whole world was in very great measure dependent upon Great Britain for its supplies of ordinary cast iron. Even as lately as 1871, the United States of America received from Great Britain nearly one-fifth of its total produce of pig iron; but from 1875 all importation of British iron ceased for over three years, and it was only in consequence of requirements in the States exceeding the capabilities of production that some small demands arose in 1879, which were for some time maintained.

But while, in 1879, the pig iron produced in the United States amounted to little over 3,000,000 tons, in 1882 the make had increased by 70 per cent., viz., to over 5,100,000 tons. Since that time the actual make has not increased (in 1885 it amounted to 4,529,869 tons of 2,000 lbs.), but the capacity of production, which vitally

interests the iron trade of this country, has risen enormously, the present capacity of all the American pig-iron works being estimated at over 8,900,000 tons, or nearly 300 per cent. greater than it was in 1879. So much regarding the United States; looking nearer home, we find that the iron of France, Belgium, and Germany not only competes with ours in the open market, but that Belgian and German iron is actually imported into this country to a moderate extent.

As an instructive illustration of the advance and influence of the improvements which have been made in intercommunication upon the value of our natural products and their importance even in our own industries, I may, on the authority of Sir Lowthian Bell, state the astounding fact that in the opinion of competent authorities, the ore (hæmatite) especially suitable for steel manufacture by the Bessemer process can be brought over sea a distance of 1,000 miles, landed close to mines furnishing the cheapest made pig iron of Great Britain, and converted into steel rails at a lower cost than the native ironstone of Cleveland can furnish similar rails in iron.

From time to time the ground which we have lost through the development of the resources of other countries has been more than retrieved temporarily by improvements effected through the more thorough comprehension and consequent better application of the scientific principles underlying processes of manufacture. Thus the quantity of fuel consumed in producing wrought iron rails has been gradually reduced by improvements in the construction and working of furnaces, until less than one-half the amount is now required per ton of such rails than was employed fifty years ago; but, remarkable as it may seem, the ultimate effect of an advance of this importance is actually to improve the position, in relation to this manufacture, of other nations less favorably circumstanced than Great Britain in the matter of coal, for, instead of having to multiply any difference in our favor in the cost of fuel required to produce a ton of rails by twelve, that difference has now only to be multiplied by three in order to arrive at the extent of our advantage.

The history of the development of steel manufacture during the last twenty-five years affords a most instructive illustration of the fluctuations which may ensue in the value of our natural resources, and the consequent condition of one or other of our important industries, arising out of continued advances made in the application of science to the perfection or transformation of manufacturing processes, and of the stimulating effects of such fluctuations upon the exertions of those who are able to bring scientific knowledge to bear upon the solution of problems in industrial operations which entirely baffle the ordinary manufacturer. Within that period the inventions of Bessemer and of Siemens have led to the replacement of iron by steel in some of its most extensive applications. The Bessemer converter, by which pig iron is rapidly transformed into steel by the injection of air into the molten metal, has, so far as this country is concerned, to a very great extent superseded the puddling furnace, in which pig iron is transformed by long-continued laborious treatment into steel or malleable iron. This important change in our national industry was, ere long, productive of a serious crisis therein, and for the reason that the pig iron produced from a large proportion of those ores which, from their abundance and the cheapness of their treatment, have been largely instrumental in placing Great Britain in her high position as an iron producing nation, could not be applied to the production of marketable steel by means of the Bessemer converter. In the purification of this pig iron during its conversion in the puddling furnace into a suitable material for the production of rails, the elementary constituent, phosphorus, which it had carried with it from the ore as a contaminating ingredient very detrimental to its strength, was eliminated, and by sufficient treatment a malleable iron of good quality was obtained; but in the production of steel from the same material in the Bessemer converter the phosphorus is almost entirely retained in the metal, rendering it unsuitable for manufacture into rails or plates. Hence the application of this rapid steel making process had to be chiefly restricted to particular kinds of ores, the supplies of which are limited to a few districts in this country. These had to be largely supplemented by importations from other countries; nevertheless, the cheapness of production and superiority in point of strength, durability and lightness of

the steel rails thus sent into the market from the Bessemer converter combined to maintain a supremacy of them over iron rails, &c., manufactured by the old puddling processes from the staple ores of the country.

The advantages presented by steel over the wrought iron of the puddling furnace for constructive purposes speedily became evident; combining, as it does, nearly double the strength with a more than proportionate superiority in elasticity and ductility, its value for shipbuilding purposes did not long fail to be realized. It was soon found more profitable to build a steel steamer, paying a price of nearly £9 per ton for the material, than to construct one of iron, which cost only £6 5s. per ton. The effect of the rapid displacement of malleable iron by steel produced from ores of a particular class has been that at least 85 to 90 per cent. of the iron ores of Great Britain could no longer be applied to the production of material for rails and for constructive purposes, being unavailable for steel making by any method which could compete with the Bessemer and Siemens processes. Great has been the apprehension among the owners of those ores that the demand for iron which they can furnish could not revive, but the scientific metallurgist has successfully grappled, from more than one direction, with the great problem of restoring their commercial importance.

Modifications of the mode of working the rival of the Bessemer process, namely, the open-hearth (Siemens-Martin) process, have given successful results in the production of serviceable rails containing higher proportions of phosphorus than had before been admissible, and a simple alteration of the method of carrying out the Bessemer process has, within the last few years, led to really triumphant results with the employment of those ores which, before, could only be dealt with by the searching operation of the old puddling furnace. By utilizing the basic character of lime during the treatment of the melted pig iron, yielded by phosphoric ores, with air in the Bessemer converter, the phosphorus is fixed at the moment of its elimination by oxidation from the metal, and the objectionable impurity is held bound in the slag, while a steel is obtained rivaling in freedom from phosphorus the product furnished by the pure varieties of English and foreign ore which alone could previously be successfully dealt with by the Bessemer process. This modified treatment of iron for the production of steel called the basic treatment, was soon applied also to the open hearth (the Siemens and Siemens-Martin) process of steel making; thus a new era was established in steel manufacture by the quick processes, there being now but very few restrictions to their application to iron produced from all varieties of ores. Indeed, the treatment is actually being applied profitably to the recovery of iron from the rich slag forming the refuse-product of the puddling furnace in the production of malleable iron, which, containing as it did the phosphorus eliminated from the pig iron by the laborious purifying treatment, had been condemned to limited usefulness as a material for road making, while now it ranks in market value with some ores of iron. Yet another most interesting and valuable result has been achieved by this simple application of scientific knowledge. The slag or refuse-product of the basic treatment of iron contains, in the form of phosphates of lime and magnesia, the whole of the phosphorus which it is the main function of that treatment to separate from the metal; it was soon found that the phosphoric acid which had been produced by the elimination of the pernicious element in the conversion of bad iron into good steel, existed in this refuse slag in a condition as readily susceptible of assimilation by plants as it is in the valuable artificial manure known as superphosphate; this refuse-slag, simply ground up, constitutes therefore a manure which is already of recognized value and commands a ready sale at very profitable prices.

The organization of this latest advance in the development of steel manufacture dates back only nine years, and already the year's product of the basic process amounts to over 1,300,000 tons of steel. But although it is to Englishmen that the owner of iron property and the steel-maker are again indebted for these important results, and to English manufacturers that the first practical demonstration of the success of this process is due, its application has been far more rapidly elaborated upon the continent than here: in Germany the importance of the subject was at once realized, and it is there that considerably the largest proportion of steel is pro-

duced by the basic treatment; it is in Germany also that the value of the slag for agricultural purposes has been developed; the first steps in its utilization here being but just now taken, in Staffordshire.

I have already referred to the remarkable strides which have been made in the extension of iron manufacture in the United States: the development there of steel production has been no less marvellous. In 1879, 928,000 tons of Bessemer steel were produced; in 1885 the make amounted to 1,701,000 tons, while the productive capacity in that year was estimated at 4,102,000 tons. With other extensive steel-producing works in course of completion, provision is being made for increasing the power of production by another million tons. Looking to the fact that at the present time the railway mileage in the United States exceeds that of the whole of Europe, there being 1,370,000 miles of railway in operation, while at the beginning of 1865 there were only 34,000 miles, the causes of this enormous development of the iron and steel manufacture are evident; the resources of the country in ore and fuel are gigantic, and the systematic technical training of the people has made its influence felt upon the development of this as of every other branch of industry which our friendly rivals pursue. But it is not only in the United States that the development in the production of iron and steel has greatly increased of late years: thus, in Germany the increase in the production of pig iron alone, during the last twenty-one years, has been 237 per cent., in Austro-Hungary 152 per cent., while the increase in France and Belgium is 64 per cent., and therefore not greatly inferior to our own (75 per cent.).

Although, however, the increase in actual production of iron and steel in this country has not kept pace with that of some other countries, it is satisfactory to know that our productive power has very greatly increased in late years, and there is probably no one branch of our industries in which we have maintained our position so satisfactorily in regard to quality of product as that of iron and steel manufacture, even although, every now and then, we have indications that in the struggle with other nations for superiority of product and for pre-eminence in continuity of progress, we have to look to our laurels. While the country owes a deep debt of gratitude to such men as Neilson, Mushet, Bessemer, Siemens, Thomas and Gilchrist, who by their brilliant discoveries and inventions have maintained Great Britain's position as the leader in the origination of successive eras of advance in iron and steel manufacture, there is no question that the trade generally has in recent years derived the greatest assistance and benefit from the organization of the society which, under the name of the Iron and Steel Institute, has brought the members of the trade to recognize that they themselves, and the country, reap incalculable benefit from their free interchange of knowledge and the results of experience, their candid discussion of successes, failures, and diversities of views and practices—the combination of friendly rivalry with hearty co-operation in the advancement of the science and practice of their important calling.

While we have succeeded in maintaining a foremost position in the iron and steel manufacture, there are some other important branches of industry, for a time essentially our own, the present condition of which, in this country, we cannot contemplate with equal satisfaction. Several instructive illustrations might be quoted, but I will content myself with a brief examination of one of the most interesting.

A glance at the history of the utilization of some products of the distillation of coal will present to us an industry created and first elaborated in England, which has, on the one hand, by its development effected momentous changes in other industries and in important branches of commerce, while on the other hand it has been in great measure wrested from us in consequence of the systematic collaboration of scientific and practical workers on the Continent.

In discussing the recent advances made in chemical manufactures as exemplified by the Exhibition of 1851, Playfair, in the lecture to which reference has already been made, spoke of the great development of the value of the evil-smelling tar, which was then made to furnish the solvent liquids benzene and naphtha, and the antiseptic creosote, the residual material being utilized for pavements and for arti-

ficial fuel. The chemist little dreamt then that between 1851 and the year of the next great Exhibition, 1862, coal tar would have become a mine of wealth equally to science, to manufactures and to the arts, in which fresh workings have ever since continued to be opened up, and still present themselves for exploration. Hofmann, in his valuable report on the chemical products and processes elucidated by that Exhibition, dwells with the enthusiasm of the ardent worker in science upon the brilliant products obtained from coal tar, which had resulted from the labors of the scientific chemist and had already acquired an almost national importance, although this great industry was then still in its infancy. From the year 1856, when the first coloring matter known as mauve, was discovered and manufactured by a young student at the College of Chemistry, Mr. Perkin, one of Hoffmann's most promising pupils, to the present time, the production of new coal-tar colors or of new processes for preparing the known colors in greater purity, has progressed uninterruptedly, this industry having long since become one of the most important, and also one of the most remarkable, as illustrating by each stage of its development the direct application of scientific research to the attainment of momentous practical results.

It is interesting to note that Perkin's discovery of mauve, as a product of one of the most important derivatives of coal-tar, called aniline, was arrived at in the course of an investigation, having for its object the artificial production of the invaluable vegetable alkaloid, quinine, the synthesis of which has been the aim of many researches during the past half century, and appears to be at length about to be achieved, as the result of a long chain of scientific research. The difficulties to be overcome before mauve could be produced upon a manufacturing scale were very great, and were only solved by a steady pursuit of scientific research, side by side with practical experiments suggested by its results. Aniline—the parent of the first coal-tar color, a liquid organic alkali—a most fertile source of interesting and important discoveries in organic chemistry, which have made the names of Hofmann and others famous—was produced with difficulty by various methods in very small quantities, so as to be almost a chemical curiosity at the time of the discovery of mauve. Among the substances from which it had been prepared was the volatile liquid known as benzene, first discovered in the laboratory of this Institution in 1825 by Faraday, in the liquid products condensed from oil gas, but afterwards obtained by Mansfield, in the College of Chemistry, from coal-tar naphtha, which also furnished in his hands a series of homologous liquids, many of them now of great importance as the raw materials from which dyes are obtained.

The conversion of benzene into aniline, which had been effected on a very small scale in different ways by German and Russian investigators, was accomplished as a manufacturing process after many difficulties by Perkin, and within a year after the discovery of mauve by him, it was in the hands of the silk dyer. Perkin's success led other chemists at once to pursue researches in the same direction, especially in France, where the next important coal-tar color, magenta or fuchsine, was obtained, by M. Verquin, the successful manufacture of which in a pure state was, however, first accomplished by English chemists, with Mr. E. C. Nicholson at their head, whose magnificent specimens in the 1862 Exhibition excited universal admiration. In 1861 beautiful violet and blue colors were produced, again by French chemists (Girard and De Lare), but were manufactured shortly afterwards in a pure state by Nicholson. This brought the coal-tar dye industry down to the year 1862, and Hofmann, in congratulating his young pupil Perkin (in his Jury Report) upon the splendid industrial result achieved, in having first manufactured a color from coal-tar, which had been arrived at by purely scientific research, expressed the hope that the commercial success of his enterprise might not divert him from the path of scientific inquiry—a hope which he has lived to see fully realized, as the long series of fresh contributions, made almost without interruption since that time by Perkin to our knowledge of organic chemistry have been among the most brilliant and important achieved by chemists of the present day, and have continued to influence in a most important manner the branch of industry which he created.

The six years succeeding those which formed the first period (1854-1862) of existence of this industry were fruitful, not only of new colors but also of progress made in England, as well as on the Continent, in the development of the manufacture; and of our knowledge of the constitution, of the beautiful dyes which outvie each other in brilliancy. Important researches by Hofmann, which, while establishing the correctness of his scientific conceptions of the real nature of magenta, led to the discovery, by him, of a matchless violet dye, were followed by the production, at the hands of Perkin and Nicholson in England, and of several workers on the Continent, of the well-known gas-light greens, of Bismarck brown, and of some eight or nine other important dyes; blue, yellow, orange and scarlet.

In the next period of six years (1863-1874) another great stride was made in the coal-tar color industry, due to important scientific researches carried out by two German chemists, Graebe and Liebermann, which led them, in the first place, to obtain an insight into the true nature of the coloring matter of one of the most important staple dye stuffs, namely the madder root. They found that this coloring matter which chemists call alizarine was related to anthracene, one of the most important solid hydrocarbons formed in the distillation of coal, a discovery which was speedily followed by the artificial formation of the madder dye, alizarine, from that constituent of coal tar. At first, this achievement of Graebe and Liebermann was simply of high scientific interest, but Perkin, who was pursuing research in the same direction, soon discovered two methods by which the conversion of anthracene into the madder dye could be accomplished on a large scale, and one of these, which was also arrived at by the German chemists simultaneously with Perkin, is still used for the manufacture of alizarine, which was for some time most actively pursued in this country, with very momentous results, as regards the market value of the madder root. The latter has long been most extensively cultivated in Holland, South Germany, France, Italy, Turkey and India, the consumption of madder in Great Britain having attained to an annual value of as much as £1,000,000 sterling. Playfair pointed out in 1852 that important improvements had been attained in the extraction of the red color or alizarine from the madder root, the refuse of which, after removal of the dye in the ordinary way, had been made, by a simple treatment, to furnish further quantities of the coloring matter. This result, most valuable at the time of the first great Exhibition, became insignificant when once the dye was artificially manufactured from anthracene; the price paid for madder in 1869 was from 5d. to 8d. per pound, but now the equivalent in artificial madder dye, or alizarine, of one pound of the root, can be obtained for one halfpenny. The latter is still used by the most conservative section of the dye trade, the wool dyers (and in some respects it appears to present in this direction a little advantage over the artificial color), but the value of its present annual consumption in Great Britain has become reduced from one million to about £40,000. During the development of the artificial alizarine industry within this third period of six years, the continued researches of Perkin, Schunck, Baeyer, Caro, and others have led to the development of further important varieties of coal-tar dyes, the most valuable of which, discovered by the two last-named chemists, was a beautiful *cerise* color, called eosine.

With the discovery of artificial alizarine the truly scientific era of the coal-tar industry may be said to have commenced, most of the commercially valuable dye products, obtained since that time, being the result of truly theoretical research by the logical pursuit of definite well understood reactions. The wealth of discovery in this direction made during the last thirteen years is a most tempting subject to pursue, but I am compelled to refrain from entering upon it, further than to point out that the practical significance of beautiful scientific researches of many years previous became developed—that one of the results was the production of very permanent and brilliant scarlet and red dyes, the manufacture of which has greatly reduced the market value of cochineal—that the careful study of the original coal-tar colors led to their production in a state of great purity by new and beautifully simple scientific methods (which include the extensive employment as an invaluable practical agent in their production, of the curious gaseous oxychloride of carbon, until

lately a chemical curiosity, produced through the agency of light, and hence christened phosgene gas, by its discoverer, John Davy, in 1812); and lastly that even the well-known vegetable coloring matter, indigo; one of the staple products of India, now ranks among the colors synthetically obtained by the systematic pursuit of scientific research, from compounds which trace their origin to coal-tar.

The rapid development of the coal-tar color industry has not failed to exercise a very important beneficial influence upon other chemical manufactures; thus, the distillation of tar, which was a comparatively very crude process, when, at the period of the first Exhibition, benzene, naphtha, dead-oil and pitch were the only products furnished by it, has become a really scientific operation, involving the employment of comparatively complicated but beautiful distilling apparatus for the separation of the numerous products which serve as raw materials for the many distinct families of dyes. Very strong sulphuric acid became an essential chemical agent to the alizarine manufacturer, and, as a consequence, the so-called anhydrous sulphuric acid, the remarkable crystalline body which was for many years prepared only in small quantities from green vitriol, and of which minute specimens carefully sealed up in glass tubes were preserved as great curiosities in my student's days, is now made at a low price upon a very large scale by a beautifully simple process worked out in England, by Squire and Messell. The alkali and kindred chemical trades have been very greatly benefited by the large consumption of caustic soda, of chlorate of potash and other materials used in the dye manufactures, and the application of constructive talent, combined with chemical knowledge, to the production of efficient apparatus for carrying out on a stupendous scale the scientific operations developed in the investigator's laboratory, has greatly contributed to the creation of a distinct profession, that of the chemical engineer.

One of the most beneficial results of the rapid development of the coal-tar color industry has been its influence upon the ancient art of dyeing, which made but very slow advance until the provision of the host of brilliant, readily applicable colors completely revolutionized both it and the art of calico printing.

In endeavoring to furnish some idea of the magnitude of the coal-tar color industry, I may state that the total value of the coal-tar colors produced in 1855 amounted to about £3,500,000. The value of the alizarine and its related dyes which are used with it for obtaining various shades of color, now amounts to about one-half of the total produce of the coal-tar color industry. Their manufacture in England in considerable quantities still continues, but it is a suggestive fact that the value of the artificial alizarine imported into this country from the continent last year was £259,795. Taking the average value of madder at 5d. per lb., and the cost of its equivalent in artificial alizarine at one-half penny, the quantity imported, if valued at 5d. per lb., would represent about £2,597,950.

I venture to think that it will be interesting at this point to quote some words of prophecy included in Professor Hofmann's important "Report on the Chemical Section of the Exhibition of 1862," and to inquire to what extent they have been verified. In commenting upon one of the features of greatest novelty in that world's show, the exhibition of the first dye products derived from coal-tar, he says:—

"If coal be destined sooner or later to supersede, as the primary source of color, all the costly dyewoods hitherto consumed in the ornamentation of textile fabrics; if this singular chemical revolution, so far from being at all remote, is at this moment in the very act and process of gradual accomplishment; are we not on the eve of profound modifications in the commercial relations between the great color-consuming and color-producing regions of the globe? Eventualities, which it would be presumptuous to predict as certain, it may be permissible and prudent to forecast as probable; and there is fair reason to believe it probable that, before the period of another decennial exhibition shall arrive, England will have learnt to depend, for the materials of the colors she so largely employs, mainly, if not wholly, on her own fossil stores. Indeed, to the chemical mind it cannot be doubtful, that in the coal beneath her feet lie waiting to be drawn forth, even as the statue lies waiting in the quarry, the fossil equivalents of the long series of costly dye materials for which

she has hitherto remained the tributary of foreign climes. Instead of disbursing her annual millions for these substances, England will, beyond question, at no distant day become herself the greatest color-producing country in the world; nay, by the strangest of revolutions, she may ere long send her coal-derived blues to indigo-growing India, her tar-distilled crimson to cochineal-producing Mexico, and her fossil substitutes for quercitron and safflower to China, Japan and the other countries whence these articles are not derived.

"Coal and iron, it has been said, are kings of the earth, and our latest chemical victories seem destined to add another vast province to the dominion of coal, and a fresh element of commercial predominance to its already powerful possessors."

So far as concerns the displacement of madder, cochineal, quercitron, safflower, and other natural dye materials from their positions of command in the markets of England and the world, Hofmann's predictions have been amply fulfilled, and it appeared, in the earlier days of the coal-tar color industry, as though he would be an equally true prophet in regard to England becoming herself the greatest color-producing country in the world. But, although Germany did little in the days of infancy of this industry, beyond producing a few of the known colors in a somewhat impure condition, many years did not elapse ere she not only was our equal in regard to the quality of the dyes produced, but, moreover, had outstripped us in the quantities manufactured and in the additions made to the varieties of valuable dyes sent into the market. The following is the estimated total value of coal-tar colors manufactured in the several producing countries as far back as 1878:—Germany, £2,000,000; England, £480,000; France, £350,000; Switzerland, £350,000. These figures show that the value of the make of colors in England was less than one-fourth that of Germany, and that even Switzerland, which, in competing with other countries industrially, is at great natural disadvantages, was not far behind us, ranking equal to France as producers. The superior position of Germany in reference to this industry may be in a measure ascribable to some defects in the operation of our patent laws and to questions of wages and conditions of labor; but the chief cause is to be found in the thorough realization, by the German manufacturer, of his dependence for success and continual progress upon the active prosecution of scientific research, in the high training received by the chemists attached to the manufactories, and in the intimate association, in every direction, of systematic scientific investigation with technical work.

The young chemists which the German manufacturer attracts to his works rank much higher than ours in the general scientific training which is essential to the successful cultivation of the habit of theoretical and experimental research, and in the consequent appreciation of, and power of pursuing, original investigations of a high order. Moreover, the research laboratory constitutes an integral part of the German factory, and the results of the work carried on by and under the eminent professors and teachers at the universities and technical colleges are closely followed and studied in their possible bearings upon the further development of the industry.

The importance attached to high and well-organized technical education in Germany is demonstrated not only by the munificent way in which the scientific branches of the universities and the technical colleges are established and maintained, but also by the continuity which exists between the different grades of education; a continuity, the lack of which in England was recently indicated by Professor Huxley with great force. Nearly every large town in Germany has its "Real Schule," where the children of the public elementary schools have the opportunity, either by means of exhibitions or by payment of small fees, of receiving a higher education, qualifying them in due course to enter commercial or industrial life, or to pass to the universities or to the polytechnic or technical high schools, which, at great cost to the nation, have been developed to a remarkable extent in recent years, and have unquestionably exercised a most beneficial influence upon the trade and commerce of the country. A most important feature in the development of these schools is the subdivision of the work of instruction among a large number of professors, each one an acknowledged authority in the particular branch of science with

which which he deals. Thus, at the Carlsruhe Polytechnic School—one of the very earliest of its kind—which was greatly enlarged in 1863—the number of professors is 41; and at Stuttgart the teaching staff of the polytechnic school amounts to 65 persons, of whom 21 are professors.

The important part taken by the German universities in the training of young men for technical pursuits has often been dwelt upon as constituting a striking feature of contrast to our university systems. The twenty-four universities in the German Empire, each with its extensive and well-equipped science departments and ample professional staff, contribute most importantly to the industrial training of the nation in co-operating with the purely technical schools. The facts specified in the report of the technical education commission that, in the session of 1883–84, there were 400 students working in the chemical laboratories at Berlin, and, that during the same session, 50 students were engaged in original research at Munich (where the traditions of the great school of Liebig are worthily maintained), illustrate the national appreciation of the opportunities presented for scientific training; and the expenditure of £30,000 upon the physical laboratory, and £35,000 upon the chemical department, of the new University of Strasbourg, serves to illustrate the unsparring hand with which the resources of the country are devoted to the provision of those educational facilities which are the very life-spring of the industrial progress whence those resources are derived.

In France higher education had been allowed to sink to a low ebb after the provincial universities had been destroyed in the great revolution, and the University of Paris had been constituted by the first Napoleon the sole seat of high education in the country. Before the late war, matters educational were in a condition very detrimental to the position of the country among nations. There was no lack of educational establishments, but the systems and sequence of instruction lacked organization.

Since the war France has made great efforts to replace her educational resources upon a proper footing. The provincial colleges have been re-established at a cost of £3,280,000, and the annual budget for their support reaches half a million. The organization of industrial education has now been greatly developed, though still not on a footing of equality with that of Germany. The practical teaching of science commences already in the elementary schools, and the groundwork of technical instruction is afterwards securely laid by the higher elementary schools, of which so many excellent examples are now to be found in different parts of France. Every large manufacturing centre has its educational establishment where technical instruction is provided, with special reference to local requirements; the Institute Industriel, at Lisle, and the Ecole Centrale, of Lyons, are examples of these. In order to render these colleges accessible to the best talent of France, more than 500 scholarships have been founded at an annual cost £30,000. The Ecole Centrale des Arts et Manufactures, of Paris, still maintains the reputation as the great technical university of the country, which it earned many years ago, and receives students from the provincial colleges, where they have passed through the essential training preliminary to the high technical education which that great institution provides.

Switzerland has often been quoted as a remarkable illustration of the benefits secured to a nation by the thoroughly organized education of its people. Far removed from the ocean, girt by mountains, poor in the mineral resources of industry, she yet has taken one of the highest positions among essentially industrial nations, and has gained victories over countries rich in the possession of the greatest natural advantages. Importing cotton from the United States, she has sent it back in manufactured forms, so as to undersell the products of the American mills. The trade of watch making, once most important in this metropolis, passed almost entirely to Switzerland years ago; the old established ribbon trade of Coventry has had practically to succumb before the skilled competition of Switzerland, and although she has no coal of her own, Switzerland is at least as successful as France in her appropriation of the coal-tar color industry and her rivalry in rate of production with England, the place of its birth and development. Comparative cheapness of labor will not go very far to account for these great successes; they undoubtedly spring mainly from the

thoroughly organized combination of scientific with practical education of which the entire people enjoys the inestimable benefit.

From the age of six to twelve, or thirteen, the children must attend primary schools, where, as the pupils advance in age, the instruction becomes more practical. The application of the knowledge acquired in these primary schools, is cultivated for three years at the so called "Improvement Schools," and upon these follow the Cantonal High Schools, which are divided into trade and classical schools, and of which there are sixty seven in the little canton of Zurich alone. Above those there are five universities and the Zurich Technical Institute, which is supported by the Federal Government, the Canton itself subscribing liberally to its aid. It owns a very numerous staff of professors and teachers, and the number of students attending is so large that, magnificent as was the accommodation which it already afforded, no less than £50,000 have recently been spent upon additional chemical laboratories. Although the Germans have so many technical colleges and chemical schools, they go in large numbers to the Zurich Institute, and even a few English appreciate the great advantages which must accrue from the thorough training attainable in this world-renowned school of technics.

Holland furnishes another brilliant example of the success with which a nation brings the power of systematic technical education to bear in securing and maintaining industrial victories in the face of most formidable disadvantages, while the United States of America, so rich in natural resources, have long since realized the immensity of additional advantages to be gained over European nations in the war of industry, by a wide diffusion and thorough organization of technical education. So long as forty years ago the States already possessed several excellent educational institutions established upon the basis of the continental polytechnic schools, but it was not until about fifteen years later that the great advances achieved by Germany in technical education, made America, like France, anxious concerning the progress and development of some of her industries.

The subject was at once made a thoroughly national one, and it is now just upon a quarter of a century ago since Congress ordained that each State should provide at least one college, having for its leading objects the diffusion of scientific instruction in its relations to the industry of the country, and decreed that public lands should be granted to the States and Territories providing such colleges. In accordance with the system adopted for the regulation of those grants, the State of New York received close upon a million acres of land, and out of this grant grew the University of Cornell, which could be called upon to educate 500 students, free of charge, under the conditions of the grant, and which was already at work in 1867, having in the meantime received most important aid from an endowment of £100,000 by a private citizen, Mr. Cornell. The combined effect of this State action and of great private munificence, was a remarkably rapid development of scientific and technical education throughout the country; besides some fifty colleges, with eight or nine thousand students, which sprang out of the Land Grant Act for Industrial Education, there are now in the States about 400 other universities and colleges (with 35,000 students, and between 5,000 and 6,000 teachers), in a large proportion of which efficient instruction in applied science is provided.

Among the more prominent of America's technical schools are the Stevens Institute of Technology, New Jersey; the Pennsylvania Polytechnic College, Philadelphia; the Lawrence Science School, in connection with Harvard University; the Columbia College and School of Mines, New York; the Massachusetts Institute of Technology, Boston; the Engineering School of the Michigan University; the Lafayette College, Pennsylvania; the Mechanical College of Louisiana University; the Brown University, Rhode Island; Washington College, Virginia; Union College, Schenectady; and the Shipley School, in connection with the Cornell University. To the useful work accomplished, within a few years, by these and many other highly important educational institutions, which have placed the acquisition of scientific knowledge within the reach of the very humblest, the enormous strides

made by the United States in the development of home industries, must unquestionably be in the main ascribed.

While extolling the comprehensive and well-organized systems of technical education existing in all parts of the continent and the United States, let us not undervalue the great progress which has been made in recent years in Great Britain in the advancement and extension of technical instruction. The Royal Commission on the Depression of Trade and Industry state, as the result of evidence collected by them, that "it would be difficult to estimate the extent to which our industries have been aided in various ways by the advance of elementary, scientific and technical education during the last twenty years."

The important influence exercised by the admirable work which the organization of the Science and Art Department has accomplished, upon the intellectual and material progress of the nation, is now thoroughly recognized. Professor Huxley, the Dean of the Normal School of Science, in his recent important letter "On the organization of industrial education," has reminded us that "the classes now established all over the country in connection with that department, not only provide elementary instruction accessible to all, but offer the means whereby the pick of the capable students may obtain, in the schools at South Kensington, as good a higher education in science and art as is to be had in the country," and "that it is from this source that the supply of science and art teachers is derived, who in turn raise the standard of elementary education" provided by the School Boards. The extension of facilities for the education of those engaged in art industries is constantly aimed at, as was recently demonstrated by the creation of free studentships for artisans in the Art Schools at South Kensington.

The necessity which has gradually made itself felt in the manufacturing towns of the United Kingdom for encouraging the study of science in its application to industries, by those who intend to devote themselves to some branch of manufacture or trade, has led to the establishment in about twenty-five towns in England and Scotland, and in two or three in Ireland, of colleges of science corresponding more or less to the Continental polytechnic schools, and accomplishing important work in training students in the different branches of science in their application to manufactures and the arts. A number of these, such as the Owen's College, Manchester, the Yorkshire College, at Leeds, the Glasgow and Bradford Technical Colleges, the Firth College at Sheffield, and the Mason's College at Birmingham, have established a high reputation as schools where science in its applications to productive industries is most efficiently taught and importantly advanced.

The wealthier of the City Companies, some of which had long been identified with important educational establishments, associated themselves with the Corporation of the City of London nearly ten years ago to establish an organization for the advancement of technical education, which has already carried out most important work. The Society of Arts, which initiated the system of examinations, afterwards so successfully developed by the Science and Art Department, set on foot and conducted for several years examinations of artisans in a few branches of technology. This useful work was relinquished in 1879 to the City and Guilds' Institute, and its extension since that period has been most satisfactory. The number of candidates then presenting themselves was 202, distributed over 23 centres where examinations were held, four years afterwards (1883) the number presenting themselves for examinations was 2,397, and last year they amounted to 4,764. The centres where examinations are held have been increased to 186, and the number of subjects dealt with, from thirteen to forty-eight. The beneficial influence exercised by these examinations upon the development and extension of technical instruction in the manufacturing districts throughout the country is already very marked. The adoption of the system, originated by the Science and Art Department, of contributing to the payment of teachers in proportion to the successes attained by their pupils, is operating most successfully in promoting the establishment and extension of classes for instruction in technical subjects, in connexion with Mechanics' Institutes and other educational establishments in various centres of industry. In 1884, the number of

classes in different parts of the country and metropolis which are connected with the examinations of the Institute was 262, having 6,395 students, and this year the number of classes has risen to 357, and that of students to 8,500.

The Technical College at Finsbury was the first great practical outcome of the efforts made by the City and Guilds' Institute to supplement existing educational machinery, by the creation of technological and trade schools in the metropolis, and the results in regard to number and success of students at the day and evening schools of that important establishment, have afforded conclusive demonstration of the benefits which it is already conferring upon young workers who, with scanty means at their command, are earnest in their desire to train themselves thoroughly for the successful pursuit of industries and trades. The evening courses of instruction are especially valuable to such members of the artisan classes as desire, at the close of their daily labor, to devote time to the acquisition of scientific or artistic knowledge. The system of evening classes, which was pursued, in the first instance, at King's College and one or two other metropolitan schools, was most successfully developed by the Science and Art Department, and being now supplemented by the important work accomplished at Finsbury College, is really, in point of organization, in advance of similar work done in other countries.

Another department of the City and Guilds' Institute, of a somewhat different character, but akin to that of the Finsbury College in the objects desired to be achieved by it, is the South London School of Technical Art, which is also doing very useful work, while the chief or central Institution for Technical Education, which commenced its operations about three years ago, if it but continue to be developed in accordance with the carefully matured scheme which received the approval of the City and Guilds' Council, and with that judicious liberality which has been displayed in the design and arrangement of the building, bids fair to become the Industrial University of the Empire.

As one of the first students of that College of Chemistry which became parent of our present Normal Schools of Science, and the creation of which (forty-two years ago) constituted not the least important of the many services rendered towards the advancement of scientific education in this country by His Royal Highness the Prince Consort, most vividly I remember the struggling years of early existence of that half-starved but vigorous offspring of the great school of Liebig, born in a strangely unsympathetic land in the days when the student of science in this country still met on all sides that pride of old England, the practical man, enquiring of him complacently: *cui bono*; *quo bono*? That ardent lover of research and instruction, the enthusiastic and dauntless disciple of Liebig—my old master—Hoffman, loyally supported through all discouragement, and in the severest straits by a small band of believers in the power of scientific research to make for itself an enduring home in this country, succeeded in very few years in developing a prosperous school of chemistry, which soon made its influence felt upon British industry; and it is not credible that less important achievements should be accomplished, and less speedily, in days when the inseparable connection of science with practice has become thoroughly recognized, by an institution created, and launched under most auspicious circumstances, by those powerful representatives of the commercial and industrial prosperity of the Empire, who, before all others, must realize the vital necessity for ceaseless exertions, even for much self-sacrifice in the immediate present, to recover our lost ground in the Dominions of industry.

It has been already demonstrated by the rapid increase which has taken place in the number of young men who, qualified by their preliminary education for admission as matriculated students, go through the complete curriculum of the Central Institute, that the combination of advanced scientific instruction with practical training which that course of study involves, will be much sought after by young men whose preliminary education has qualified them for admission, and whose probable future career will be interwoven with the advancement of one or other of the great industries of our country. But one of the most important functions of the Central Technical College should consist in the thorough training of teachers of applied

science. The statistics furnished by the technological examinations show that, while their successful organization has led to the establishment of classes of instruction, supplementary to the general science teaching in every large manufacturing centre, the increase in the number of candidates examined has been accompanied by an increase in the percentage of failures to pass the examinations, and that the supply of a serious deficiency in competent teachers was essential to a radical improvement in technical education. The work of the City and Guilds' Institute in this direction has already been well begun, and it is in the furtherance of this, by the organization of arrangements for facilitating the attendance of science teachers for sufficient periods at the Central Institute, or at more accessible provincial technical colleges, that the Imperial Institute may hope to do good work.

Without taking any direct part in the duty of education, it is contemplated that the Imperial Institute will actively assist in the thorough organization of technical instruction, and its maintenance on a footing, at least of equality, with that provided in other countries, by the system of intercommunication which it will establish and maintain between technical and science schools; by the distribution of information relating to the progress of technical education abroad, to the progressive development of industries, and the requirements of those who intend to pursue them; by the provision of resources in the way of material for experimental work, and illustrations of new industrial achievements, and by a variety of other means.

The provision of facilities to teachers in elementary schools to improve their knowledge of science and their power of imparting information of an elementary character to the young, with the aid of simple practical demonstrations of scientific principles involved in the proceedings of daily life, constitutes another direction in which important progress may be made towards establishing that continuity between elementary and advanced education which is so well developed on the Continent. The organization of facilities, combined with material aid, to be provided to young artisans who shall afford some legitimate evidence of superior natural intelligence and a striving after self-improvement, to enable them to abandon for a time the duty of bread-winning, and to work at one or other of the technical schools in London or the provincial centres, will be another object to which the resources of the Imperial Institute should be applied very beneficially. Not only will the intelligent workman's knowledge of the fundamental principles of his craft or trade be thereby promoted; his association in work and study with others who are pursuing the acquisition of knowledge in different directions, which at first seem to him alien to his personal pursuits and tastes, but come in time to acquire interest or importance in his eyes, will bring home to him the advantages of a wider and more comprehensive scope of instruction, and the enlargement of his views regarding the value and pleasure of knowledge will, in turn, exercise a favorable influence in the same direction upon those with whom he afterwards comes into contact. The cramping influence which the great sub-division of labor, resulting from the development of mechanical, physical, and chemical science, is calculated to favor, must thus become counteracted, and the workman will realize, that if he is to rise above the level of the ordinary skilled laborer, mere dexterity in the particular branch of that trade which he has made his calling must be supplemented by an acquaintance with its cognate branches, by some knowledge of the principles which underlie his work, and by some familiarity with the trades allied to his calling.

The importance of bringing technical instruction within the reach of the needy scholars of the lower middle class need not be dwelt upon, and there can be no question that one of the most powerful means of promoting the extension of technical education will be the well organized administration of a really comprehensive system of scholarships, to be judiciously utilized in connection with the well-established colleges and schools of science and technics throughout the country, in such proportions as to meet local requirements and changing conditions. That a good foundation for such a system of scholarships is likely ere long to emanate from the resources of the Royal Commission of 1851, has already been officially indicated in one of its reports; may we not also hope that many will be found in our Empire

ready to follow the example of the late Sir Joseph Whitworth, and to act in emulation of the patriotism of those men who, by munificent donations or endowments in aid of the work of bringing industrial education within the reach of all classes in the United States, have helped to place our cousins in the position to hold their own and aspire to victory, in the war of industry? The thoroughly representative character which it is intended to maintain for the governing body of the Imperial Institute, will secure the wise administration by it of funds of this kind, dedicated to the extension and perfection of national establishments for technical education, and to the encouragement of its pursuit, in the ways above indicated, by those whose circumstances would otherwise prevent them from enjoying the advantages secured to their fellow-workers in other countries. Several other directions readily suggest themselves in which the judicious administration of resources in aid of the technical training of eligible men of the artizan class could well form part of the organized work of the Imperial Institute.

By the establishment of an education branch of the Intelligence Department, which will form a very prominent section of the Imperial Institute, the working of the colleges and schools of applied science in all parts of the United Kingdom will be harmonized and assisted, and the information continuously collected from all countries relating to educational work and the application of the sciences to industrial purposes and the arts will be systematically distributed. A well organized Enquiry Department will furnish to students coming to Great Britain from the Colonies, Dependencies and India the requisite information and advice to aid them in selecting their place of work and their temporary home, and in various other ways. The collections of natural products of the Colonies and India, maintained up to the day by additions and renewals at the central establishment of the Institute, will be of great value to students in the immediately adjacent educational institutions, and will moreover be made subservient to the purposes of provincial industrial colleges by the distribution of thoroughly descriptive reference catalogues, and of specimens. Supplies of natural products from the Colonies, India, or from other countries, which are either new or have been but imperfectly studied, will be maintained, so that material may be readily provided to the worker in science or the manufacturer, either for scientific investigation or for purposes of technical experiment.

The existence of those collections and of all information relating to them, as well as of the libraries of technology, inventions, commerce and applied geography, in immediate proximity to the Government museums of science and inventions, art, and natural history, to the Normal School of Science, and to the Central Technical Institute, present advantages so obvious as to merit some fair consideration by those who have declined to recognize any reason in favor of the establishment of the Imperial Institute at South Kensington.

In the powerful public representations which have of late been made on the imperative necessity for the greater dissemination and thorough organization of industrial education, the importance of a radical improvement in commercial education, as distinguished from what is comprehended under the head of technical training, has scarcely received that prominence which it merits. It is true that, in some of our colleges, there are courses of instruction framed with more especial reference to the requirements of those who propose to enter into mercantile houses, or in other ways to devote themselves to commercial pursuits; but as a rule the mercantile employés, embraced under the comprehensive title of clerks, begin their careers in life but ill prepared to be more than mechanical laborers, and remain greatly dependent upon accident, or upon their desire for self-improvement which directs them in time to particular lines of study, for their prospects of future success in commercial life.

This impressed itself strongly upon the Royal Commission on the Depression of Trade and Industry, who state as the result of evidence collected by them that our deficiency in the matter of education as compared with some of our foreign competitors relates "not only to what is usually called technical education, but also to the ordinary commercial education which is required in mercantile houses." The ordinary clerk in a merchant's office is too often made to feel his inferiority to his

German colleague, not merely in regard to his lamentable deficiency in the knowledge of languages, but in respect to almost every branch of knowledge bearing upon the intelligent performance of his daily work and upon his prospect of advancement in one or other branch of a mercantile house. The preliminary training for commercial life on the Continent is far more comprehensive, practical and systematic than that which is attainable in this country, and the student of commerce abroad has, afterwards, opportunities for obtaining a high scientific and practical training at distinct branches of the polytechnic schools and in establishments analogous to the technical colleges, such as the High Schools of Commerce in Paris, Antwerp and Vienna.

It will be well within the scope of the Imperial Institute as an organization for the advancement of industry and commerce, to promote a systematic improvement and organization of commercial education by measures analogous to those which it will bring to bear upon the advancement of industrial education.

The very scant recognition which the great cause of technical education has hitherto received at the hands of our administrators has, at any rate, the good effect of rousing and stimulating that power of self-help which has been the foundation of many achievements of greatest pride to the nation, and we may look with confidence to the united exertions of the people of this country, through the medium of the representative organization which they are now founding, for the early development of a comprehensive national system of technical education, of the nature foreshadowed not long since by Lord Hartington, in that important address which has raised bright hopes in the hearts of the apostles of education.

In some of the views which have been of late put forward regarding the possible scope of the Imperial Institute, the antagonism which has been raised and fostered against its location in the vicinity of some of our national establishments most intimately connected with the educational advancement of the Empire, has developed a tendency to circumscribe its future sphere of usefulness, and to place its functions as a great establishment of reference and resort for the commercial man in the chief foreground. I have endeavored to indicate directions in which its relations to the Colonies and India, to the great industries of the country, and to the advancement of technical and commercial education, cannot fail to be at least as important as its immediate connection with the wants of the commercial section of the community, and those are most certainly quite independent of the particular locality in which it may be placed, excepting in so far as the command of ample space, and the advantages to be derived from juxtaposition with the great national establishments to which I have referred, is concerned. At the same time, there is not one of the directions in which the development of the resources and activity of the Institute has been thus far indicated, which has not an immediate and important bearing upon the advancement of the commerce of the Empire. There are, however, special functions to be fulfilled by the Institute, which are most immediately connected alike with the great commercial work of the city of London and with that of the provincial centres of commerce. The provision, in very central and readily accessible positions, of commercial museums or collections of natural or import products, and of export products of different nations, combined with comprehensive sample rooms and facilities for the business of inspection or of commercial, chemical or physical examination, is a work in which the Institute should lend most important aid. The system of correspondence with all parts of the Empire which it will develop and maintain will enable it to collect, and form a central depot of, natural products from which local commercial museums can be supplied with complete, thoroughly classified economic collections, and with representative samples of all that, from time to time, is new in the way of natural products from the Colonies and Dependencies, from India, and from other countries. In combination with this organization, the distribution, to commercial centres, of information acquired by a central department of commercial geography will constitute an important feature in the work of the Institute, bearing immediately upon the interests of the merchant at home, in the Colonies, and in India.

The formation of specially commercial institutions, of which enquiry offices, museums, and sample-rooms with their accessories, will form a leading feature, and which will supply a want long since provided for by the nations with whom we compete commercially, is already in contemplation in the cities of London and Newcastle; other great commercial centres will also doubtless speedily take steps to provide accommodation for similar offshoots from the central collections of the Institute. So far as the Indian Empire is concerned, the organization of correspondence by provincial committees which already exists in connection with economic and geological museums established in the several presidencies, affords facilities for the speedy elaboration of the contemplated system of correspondence in connection with the Institute, and the establishment of similar organizations in the different Colonies will, it is hoped, be heartily entered upon and speedily developed.

The system of correspondence to which I have more than once alluded in indicating some of the work of the Institute, in relation to technical education and industry, and which will form a most important part of the main groundwork of its organization, is not in the least theoretical in its character. Its possible development has suggested itself to many who have given thought to the future sphere of action of the Institute in connection with commerce and industry; to myself, who for many years have been, from time to time, officially cognizant of the work performed by what are called the Intelligence Departments of the Ministries of War abroad and at home, the direct and valuable bearing of such a system upon the work of the Institute, suggested itself as soon as I gave thought to the possible future of this great conception, and to Major Fitzgerald Law belongs the credit of suggesting that the well-tried machinery of the War Office Intelligence Department should serve as a guide for the elaboration of a Commercial Intelligence Department. This Department, which will it is hoped ere long commence its operations by establishing relations with the chief Colonies and India, will be in constant communication with the Enquiry Offices to be attached to the local commercial establishments and to other provincial representations of the work of the Institute, systematically distributing among them the commercial information and statistics continually collected. It will be equally valuable to the Colonies and India by bringing their requirements thoroughly to the knowledge of the business men in the United Kingdom, and by maintaining that close touch and sympathy between them and the people at home which will tend to a true federation of all parts of the Empire.

In no more important direction is this system destined to do useful work than in the organization of emigration, not only of labor, but also of capital. The establishment of emigration enquiry offices at provincial centres in connection with a central department at the Institute, will be of great service to the intending emigrant, by placing within his reach the power of acquiring indispensable information and advice, and by facilitating his attainment of the special knowledge or training calculated to advance his prospects in the new home of his choice. Similarly, the capitalist may be assisted in discovering new channels for enterprise in distant portions of the Empire, the resources of which are awaiting development by the judicious application of capital and by the particular class of emigration which its devotion to public works or manufacturing enterprise in the Colonies would carry with it. The extent to which the State may aid in the organization of systematic emigration, and the best mode in which it may, without burden to the country, promote the execution of such public works in the Colonies as will open up their Dominions to commerce and at the same time encourage the particular class of emigration most advantageous to the Colonies themselves, are subjects of great present interest; but, in whatever way these important questions may be grappled with, such an organization as the Institute should supply, cannot fail to accelerate the establishment of emigration upon a sound and systematic footing, and to co-operate very beneficially in directing private enterprise into the channels best calculated to advance the mutual interests of the capitalists and the Colonies.

I have already indicated that it is not only in connection with purely commercial matters that the Intelligence Department of the Institute will occupy itself.

The prospects of its value to the Colonies and to India in promoting the development of their natural resources and the cultivation of new fields for commercial and industrial activity are well illustrated by the valuable work which has been accomplished upon similar lines by the admirably directed organization at Kew.

By the systematic collection and distribution of information relating to industries and to education from all countries which compete with ourselves in the struggle for supremacy in intellectual and industrial development, the Institute will most importantly contribute to the maintenance of intimate relationship and co-operation between educational, industrial and commercial centres, between the laborer in science and the sources through which his work becomes instrumental in advancing national prosperity ; between the Colonies and the Mother-Country, between ourselves and all races included in the vast Empire of Her Majesty.

In conclusion, I venture to express the belief that the organization which the Imperial Institute will have the power of developing, with a wisely constituted governing body at its head, may accomplish, and at no distant date, most useful work, which has been already publicly indicated as destined to have an immediate bearing upon the federation of England and her Colonies. Professor Huxley, in his last Presidential Address to the Royal Society, uttered most suggestive words, indicative of the value and the possibility of a scientific federation of all English speaking peoples ; and this subject is now receiving the careful consideration of that Society. It is firmly believed by leading men of science, that such a federation of at any rate the Colonies and Dependencies with us will be brought about, and it is in harmony with that belief that the Imperial Institute should be expected, through its organization, to afford important aid in the application of the principle of federation to the geological and topographical survey of the Colonies, in the establishment of a system of interchange of meteorological and scientific observations, and in the promotion, in various ways, of thorough co-operation between particular Colonies or groups of Colonies, for applying the results of scientific research to the mutual development of their natural resources.

It may be that the programme of which I have given a very imperfect exposition, as indicative of the work which the Imperial Institute may be called upon to accomplish, will be regarded as almost too ambitious in its scope for practical fulfilment. The outline of this programme has been drawn by a combination of abler hands than mine ; I have but ventured to sketch in some of the details as they have presented themselves to my mind, and to the minds of others who have given thought to this great subject ; but I dare to have faith in its realization, and to believe that, if the work be taken in hand systematically and progressively, the nucleus being first thoroughly established from which fresh lines of departure will successively emanate, the Imperial Institute is destined to become a glory of the land. And, as one whose mission it has been, through many years of arduous work, to assist in a humble way in the application of the resources of some branches of science to the maintenance of the country's power to defend its rights and to hold its own, I may perhaps be pardoned for my presumption in giving expression to the firm belief that, by the secure foundation and careful development of this great undertaking, and by its wise direction by a Government truly representative of its founders—all nations and classes composing the Empire—there will be secured in it one of the most important future defences of the Queen's dominions ; one of the most powerful instruments for the maintenance of the unity, the strength, and the prosperity of her realms.

THE BRITISH COLONIES.

ILLUSTRATIONS OF THEIR DEVELOPMENT DURING THE QUEEN'S REIGN.

IMPORTS AND EXPORTS.

	Imports. £	Exports. £
American Dependencies.....	{ 1837... 5,200,000	5,000,000
	{ 1885... 25,700,000	21,500,000
Australasia.....	{ 1837... 1,500,000	1,300,000
	{ 1885... 63,500,000	52,000,000
Africa.....	{ 1837... 2,000,000	1,500,000
	{ 1885... 10,000,000	12,000,000

All the imports and exports taken together were eleven times larger in 1885 than they were in 1837.

British shipping trade with Colonies....	{ 1837... 3,700,000 tons.
	{ 1885... 56,600,000 do
British export to Colonies.....	{ 1837... £11,300,000.
	{ 1885... £54,500,000.

POPULATION.

Of all the Colonies existing in 1837.....	{ 1837... 4,204,700
	{ 1881... 12,753,277*
Of all the Colonies in 1881.....	15,763,072*

* These numbers must have considerably increased since 1881.

RATE OF INCREASE FROM 1837 TO 1881.

In European Colonies.....	Slight.
In Ceylon.....	Twice as large as it was.
In the Great Asiatic Colonies.	About the same.
In the Cape of Good Hope...	Eight times as large as it was.
In Canada.....	Three times as large as it was.
In the West Indies.....	Not quite twice as large as it was.
In Australia.....	Nearly twelve times as large as it was.

AREA, POPULATION, TRADE, ETC.,

(Compiled in the

	HOW AND WHEN ACQUIRED.		AREA.	
			Square Miles.	
British Isles.....				120,832
Indian Empire (including Burmah).....		1757-1858		1,574,516
Dominion of Canada—				
Quebec.....	Conquest, Treaty Cession.	1759-1763		3,470,392
Ontario.....				
New Brunswick.....				
Nova Scotia.....				
British Columbia.....				
Manitoba.....	Settlement.....	1813		
North-West Territories.....	Charter to Company.....	1870		
Prince Edward Island.....	Conquest.....	1756-1763		
Newfoundland.....	Settlement, Treaty Cession	1550-1713		40,200
Australasia—				
New South Wales.....	Settlement.....	1787	311,098	
Victoria.....	do.....	1834	87,884	
South Australia.....	do.....	1836	903,690	
Queensland.....	do.....	1824	668,497	
Western Australia.....	do.....	1826	1,060,000	
Tasmania.....	do.....	1803	26,215	
New Zealand.....	Purchase.....	1840	104,458	
Fiji.....	Cession from Natives.....	1874	7,740	
New Guinea.....	Annexation.....	1884	86,360	
South Africa—				3,255,942
Cape of Good Hope.....	Treaty Cession (finally)...	1815	219,700	
Bechuanaland.....		1885	185,000	
Natal.....	Annexation.....	1843	18,750	
				423,450
St. Helena.....	Conquest.....	1673		45
Ascension.....	Annexation.....	1815		37
Ceylon.....	Treaty Cession.....	1801		25,365
Mauritius.....	Conquest and Cession.....	1810-1814		713
Straits Settlements.....	Treaty Cession.....	1785-1824		1,472
Hong Kong.....	do.....	1841		30
Port Hamilton.....		1884		5
British North Borneo.....	Cession to Company.....	1877		30,000
Labuan.....	Treaty Cession.....	1847		30
British Guiana.....	Conquest and Cession.....	1803-1814		109,000
West Indies—				
Jamaica.....	Conquest.....	1655	4,362	
Trinidad.....	do.....	1797	1,754	
Windward Islands.....	Cession.....	1783	784	
Leeward Islands.....			665	
Bahamas.....	Settlement.....	1629	5,390	
				12,955
Bermudas.....	do.....	1612		19
British Honduras.....	Conquest.....	1798		6,400
West Africa—				
Sierra Leone.....	Transfer from Company....	1807	468	
Gambia.....			69	
Gold Coast.....	Conquest and Cession.....	1663-1871	18,784	
Lagos.....	Cession.....	1861	1,069	
				20,390
Gibraltar.....	Conquest.....	1704		2
Malta.....	Treaty Cession.....	1814		119
Cyprus.....	Convention with Turkey...	1878		3,584
Heligoland.....	Treaty Cession.....	1814		1
Falkland Islands.....	do.....	1770		6,500
				9,101,999

OF THE BRITISH EMPIRE.

Spring of 1886.)

POPULATION.		IMPORTS.		EXPORTS.	
		Total. £390,018,569	From Colonies. £95,812,911	Total. £295,967,583	To Colonies. £88,303,634
.....	35,241,482	Total. 68,156,654	From Brit. Isles. 49,711,562	Total. 89,098,427	To Brit. Isles. 36,984,034
.....	253,982,595				
.....	4,324,810	23,917,200	8,921,510	18,732,156	8,936,897
.....	179,509	1,682,457	642,528	1,368,153	322,527
921,268	.....	22,826,985	11,423,047	18,251,506	7,683,886
961,276	.....	19,01,633	9,149,076	16,050,465	7,745,415
312,781	.....	5,749,353	2,983,296	6,623,704	4,081,864
309,913	.....	6,381,976	2,520,863	4,673,864	1,715,391
31,700	.....	521,167	222,940	405,693	279,660
130,541	.....	1,656,118	642,102	1,475,857	359,708
561,304	.....	7,663,888	4,934,493	7,091,667	5,158,078
128,614	.....	434,522	.....	345,344	35,542
135,000	.....			
	3,495,397				
1,249,824	.....	5,260,697	4,023,819	7,031,744	6,602,193
424,495	.....	1,675,850	1,310,452	957,918	721,190
	1,674,319				
	5,024	63,786	27,931	23,406	1,164
	200				
	2,763,984	4,311,451	1,315,345	3,161,262	1,852,829
	377,373	2,963,152	692,430	3,941,757	508,331
	540,000	18,676,766	4,282,920	17,260,138	3,845,362
	160,402	4,000,000	3,218,946	2,000,000	1,052,302
	2,000				
	150,000	96,282		52,551	
	6,298	84,869	1,554	85,741	
	264,061	1,999,448	1,099,504	2,322,032	1,777,376
585,536	.....	1,595,262	910,194	1,518,024	643,971
153,128	.....	3,083,870	887,011	2,769,727	863,290
311,413	.....	1,611,483	670,955	1,834,388	797,194
119,546	.....	476,457	207,637	466,759	160,903
43,521	.....	181,494	37,329	122,351	35,771
	1,213,144				
	13,948	283,440	75,416	88,622	2,557
	27,452	237,538	127,602	317,449	205,032
60,546	.....	455,424	323,572	377,055	156,730
14,150	.....	212,122	87,099	199,483	18,753
408,070	.....	537,339	403,788	467,228	330,997
75,270	.....	533,221	338,318	672,414	249,794
	558,036				
	18,381				
	149,782	13,343,789	122,899	12,908,492	3,120,319
	186,173	304,375		287,521	
	2,001				
	1,553	67,848	60,962	101,338	86,468
	305,337,924	£220,752,916	£111,377,100	£223,134,236	£96,397,528

(79a)

ADDITIONAL PAPERS

RESPECTING THE

PROPOSED IMPERIAL INSTITUTE.

OTTAWA, 21st June, 1887.

DEAR MR. MCGEE,—Sir Charles Tupper thinks the enclosed cutting from the *London Standard* of 30th May, with reference to the constitution of the Governing Body of the Imperial Institute, should be filed with the other papers on the same subject in your office, and that a copy should be placed on the Table of the House to go with the papers already brought down on the question.

Yours very truly,
C. C. CHIPMAN.

JOHN J. MCGEE, Esq.

(London Standard, 30th May, 1887.)

THE IMPERIAL INSTITUTE.

The Organizing Committee of the Imperial Institute have had under consideration the constitution of the Governing Body of the Institute, their desire being to make it fully representative of the industrial and commercial interests of all parts of Her Majesty's Dominions.

The complete provisions of the scheme have not yet been matured, but the following outline has been prepared by the Committee, and has received the sanction of H. R. H. the Prince of Wales.

The details are open to further consideration, but it is thought desirable to make public, without further delay, the nature of the body in whom it is proposed to vest the government of the Institute.

I.—GENERAL COUNCIL.

The Governing Body to be a General Council, appointed as hereinafter mentioned, the management of the Institute being vested in an Executive Council chosen by the members of the General Council from amongst their number in the prescribed manner. Provision to be made for securing a fair representation upon the Executive Council of the United Kingdom, the Colonies, and India respectively.

II.

The General Council to consist of one hundred members; such number to be increased to an extent not exceeding fifty, according to requirements which may arise out of contemplated arrangements with the Royal Colonial Institute and the Royal Asiatic Society, and with respect to the creation of Fellows of the Institute.

Ten members to be nominated by the Queen.

Forty-five members to represent the United Kingdom and the Isles in the British Seas.

Thirty to represent the Colonies.

Fifteen to represent the Indian Empire.

IIIA.—SECTION OF THE GENERAL COUNCIL TO REPRESENT THE UNITED KINGDOM, &c.

1. Ex-officio Members,—The Speaker of the House of Commons, the Governor of the Bank of England, the Lord Mayor of London, the Lord Provost of Edinburgh, the Lord Mayor of Dublin.

2. Representatives of the commerce and industries of the different parts of the United Kingdom, &c.

For the purpose of electing such representatives, the country to be divided into districts (estimated at 17), and one such representative to be chosen in each district by the mayors of the municipal corporation in such district at a meeting held for that purpose.

3. Three members to be nominated by the Associated Chambers of Commerce, and one by the London Chamber of Commerce.

4. Four representatives of agriculture, to be nominated by the Royal Agricultural Society, the Central Chamber of Agriculture, the Highland Society, and the Royal Dublin Agricultural Society.

5. One member to be nominated by each of the following societies, institutions and associations:—The Royal Society, the Royal Society of Edinburgh, the Royal Irish Academy, the Society of Arts, Manufactures and Commerce, the Institution of Civil Engineers, the Institution of Mechanical Engineers, the Iron and Steel Institute, the Chemical Societies, the Society of Telegraph Engineers and Electricians, the City and Guilds Institute of Technical Education, the Royal United Service Institution, the Royal Academy, the Mining Association of Great Britain, the Trades Union Congress, the National Miners' Union.

IIIB.—COLONIAL SECTION OF THE COUNCIL.

To be nominated as follows:—Canada, Dominion and Provinces, and Newfoundland, 10; Australian Colonies, viz.: New South Wales, 2; Victoria, 2; South Australia, 2; Queensland, 2; Tasmania, 2—10; New Zealand, 2; Cape Colony, 2; Crown Colonies, 6. The mode of nomination of the representatives of the several colonies to be hereafter determined.

IIIC.—INDIAN SECTION OF THE COUNCIL.

The mode of nominating the fifteen Indian representatives to be hereafter determined.

IV.

A temporary committee nominated by the Prince of Wales to take the necessary steps for calling into existence as soon as practicable the Permanent Governing Body, and to do such other acts as are in the meantime necessary. The duties of this committee to cease as soon as the Executive Council comes into existence.



